



# Proceedings of the 2014 National Community Energy Conference, Malawi

19th June, 2014, Natural Resources College,  
Malawi



Technical Support by Community Energy Scotland



Hosted by Community Energy Malawi



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## Contents

<b>Executive Summary.....</b>	<b>3</b>
<b>1. Introduction.....</b>	<b>5</b>
1.1 Background and Context.....	5
1.2 Organisational Aspects.....	6
1.3 Conference Participants.....	6
<b>2. Opening Ceremony.....</b>	<b>7</b>
2.1 Welcoming Remarks.....	7
2.2 Conference Objectives/Outcomes.....	7
2.3 Keynote Address.....	8
<b>3. Key Messages from Presentations.....</b>	<b>9</b>
<b>4. Moderated Discussion: Improving Access, Impact and Sustainability of Renewable Energy Systems.....</b>	<b>16</b>
<b>5. Conclusions and Recommendations.....</b>	<b>18</b>
<b>6. Closing Remarks.....</b>	<b>19</b>
<b>Annex 1.....</b>	<b>20</b>
<b>Annex 2.....</b>	<b>23</b>

## EXECUTIVE SUMMARY

Community Energy Malawi (CEM) with financial support from Scottish Government and technical support from Community Energy Scotland, organised the first ever National Community Energy



Conference on 19<sup>th</sup> June, 2014 in Malawi. The Conference under the theme Community Access to, Impact and Sustainability of Renewable Energy Technologies (RETs) drew participants from community groups, government, the donor community, academia, civil society, installers and service providers.

The conference was held at the Natural Resources College in Lilongwe, Malawi. It was officially opened by the Director of Administration in the Ministry of Energy, representing the Principal Secretary who could not make it on the day due to a last minute work programme change

As a way of letting delegates appreciate issues surrounding community access to, impact and sustainability of RETs in Malawi, 8 presentations were made by people who are involved in RE programmes at various levels. Community groups were fairly represented and they shared their experiences as individuals who are involved in taking forward projects. These presentations were complimented by other presentations from experts in the field as well as policy makers and regulators. As a way of fostering networking and raising awareness on available technologies on the market, the conference also provided space for exhibitions from installers and service providers.

The key messages that came out of the conference were that there is still limited access to RETs by Malawian communities due to several factors. Among others, the conference bemoaned the lack of representation of energy issues at both village and district levels in line with the decentralisation policy adopted by Malawi. The conference further discussed the high prices of RE components and systems which emanates from Malawi's failure to manufacture RE components and systems. Delegates were also informed of the launch of Community Energy Malawi as a key player in the promotion of the Community Energy agenda. Delegates were oriented on CEMs approach of decentralised energy management and implementation of projects as Social Enterprises. The conference also saw the launch of the Community Renewable Energy Tool kit for Malawi which will go a long way in helping stakeholders to plan, implement and sustain RETs.

In an effort to prioritise issues and make pragmatic recommendations, the conference engaged delegates in moderated discussion that highlighted the following issues:

- The cost of maintaining systems and buying new components is making access a challenge in areas where renewable energy systems are most needed; in rural areas where available income is low
- Taxation regimes are making components expensive
- The failure of Malawi to produce its own RE equipment or components is an issue
- Poor mainstreaming of energy issues in Development Plans
- Lack of coordination between and among energy players in Malawi
- Lack of clear sustainability direction by most installations

Awareness of the need for the conference to meaningfully contribute towards the growth of the Community Energy Sub sector was discussed, it was felt that the CEM approach must be supported and that communities should form part of any discussion affecting them. Further recommendations made were as below:

- Community Energy Players must come together and work in a coordinated manner



- Malawi should start manufacturing solar components where possible. The private sector should make sure that they visit rural areas and that banks and government must create favourable conditions to stimulate investment into manufacturing of RE gadgets.
- Community groups represented at the conference were of the view that Donor funds should go directly into the communities rather than in offices to be spent on workshops. Money spent in this way has a greater impact
- Academic institutions should rework their curriculum to introduce courses aimed at producing graduates who can offer practical solutions to Malawi's problems e.g. who can venture into manufacturing of RE equipment or gadgets so as to make them affordable.
- Donors should consider funding organisations like CEM who are working on establishing a decentralised model for community energy in Malawi.
- District Councils should ensure that Energy issues are included in the Village Development Plans
- Organise an orientation for councillors on energy issues and how to plan them at Village, Ward and District Level
- Organisations, donors or service providers when organising Workshops, Consultative Meetings or Conferences should ensure adequate representation of the rural people or beneficiaries of projects as was the case at the conference.
- Community engagement is very important for sustainability, communities need to be brought into the development process at the earliest possible stage and given the right training and support
- The development of new products or components should be research based
- Malawians should move away from a donor dependency culture which is not healthy and not sustainable in the long term. We need to explore new business models that do not rely on foreign donations to install renewable energy technologies in rural areas in Malawi. In the words of Dr Juma, "the strategy should be based on "selling" as opposed to "donating" the technologies on the part of the project sponsors and "buying" as opposed to "receiving" on the part of the beneficiaries."



## 1. Introduction

### 1.1. Background and Context

Community Energy Malawi is an organisation born out of the Scotland/Malawi Governments Partnership through the Malawi Rural Electrification Acceleration Programme (MREAP). The MREAP was launched in February 2012 and will end in March 2015.

The MREAP came about following a 2011 scoping study initiated by the Scottish Government and done by the University of Strathclyde together with Community Energy Scotland (CES) and IODParc. This study aimed to look at the current situation of the renewable energy sector within Malawi and make key recommendations on how best to focus future Scotland Government support. This Scoping Study was based on several meetings with the Government of Malawi, regulatory bodies, industry players, community based organisations, NGOs, educational institutions and donor agencies.

The University of Strathclyde together with partners were then asked by The Scottish Government to propose a programme of support that would address many of these recommendations. The resulting programme was launched in February 2012 by the name Malawi Renewable Energy Acceleration Programme (MREAP). The MREAP has four strands, one of which is the Community Energy Development Programme (CEDP).

The CEDP is managed by Community Energy Scotland but is working in close partnership with four key Strategic Energy Partners (SEP) and these are Concern Universal (CU), Mzuzu University, Mulanje Renewable Energy Agency (MUREA), and Chikwawa Renewable Energy Development (CRED). These SEPs have been involved in community energy led developments within Malawi for several years and provide crucial strategic input into the CEDP. THE CEDP is implementing Renewable Energy Projects targeting Schools Clinics and CBOs in 12 Districts of Malawi (Chitipa, Mzimba, Likoma, Nkhotakota, Lilongwe, Dowa, Ntchisi, Balaka, Machinga, Neno, Phalombe and Nsanje).

Consultation with the Strategic Energy Partners of the CEDP and other stakeholders in Malawi revealed that there was a need for a nationally based organisation dedicated to driving forward the community energy agenda in Malawi. Thus the need for "Community Energy Malawi" (CEM) was born and funds from the Scottish Government have facilitated the establishment of Community Energy Malawi. This is considered crucial in ensuring the continuity of the programme after March 2015 and to ensure that momentum surrounding community energy in Malawi is not lost.

CEM is poised to be a Malawian led and membership driven organisation. It seeks to mobilise community energy focused organisations and individuals into one solid force that can influence policy and initiate renewable energy solutions for the betterment of Malawians. Its activities will largely be charitable in nature but run as Social Enterprises with an aim of harnessing an entrepreneurial attitude in its beneficiaries.

CEM's mission is **"To enable communities in Malawi to create sustainable renewable energy solutions to meet their energy needs"**. The niche for CEM thus is Community and its strategic



focus is on the generation of sustainable energy solutions. For a country like Malawi where 90% of energy is from fuel wood which is threatened by overpopulation and unsustainable use, the energy challenges faced by communities are enormous and CEM is a timely solution to such woes. CEM plans to achieve this mission through the following objectives:

1. To build knowledge, capability and confidence in communities on the development, installation and management of renewable energy projects
2. To raise awareness of the potential of renewable energy to address community needs
3. To identify, acquire and enable communities access funds for the purpose of community energy development
4. To create and facilitate a mutually supportive network of community group members
5. To represent members in making the case for the creation of a supportive policy and regulatory framework in the energy sector

## **1.2.Organisational Aspects**

The Conference was initiated as part of the tradition of the CEDP Line Managers, CES as a way of bringing together stakeholders to discuss pertinent issues rocking the Community Energy Industry.

In conceiving the conference, organisers undertook consultations with relevant stakeholders. The consultations included meetings with stakeholders, literature review of reports from organisations implementing community energy projects, policies as well as interactions with community groups. This process resulted in the generation of conference theme “**Community Access to, Impact and Sustainability of Renewable Energy Technologies in Malawi**”. The timetable is attached in Annex 1.

As conferences attract stakeholders from a wide range of backgrounds, a translator was hired to translate English presentations into Chichewa so that all presentations could be understood by all.

Community Energy Malawi, was responsible for inviting delegates to the conference as well as arranging for speakers. Delegates to the conference were invited in two ways. Others were directly invited by CEM while others did so by expressing their interest following Conference ads placed in Newspapers and the CEM Web and Newsletter.

Technical backstopping was ably provided by CES while funding was provided by the Scottish Government. Other delegates and exhibitors met their own costs to the conference.

## **1.3.Conference Participants**

The conference attracted delegates from the key sectors of the community energy sector including; representatives of community groups implementing RE projects, service providers, policy makers (government departments), energy regulators, Malawi Revenue Authority (MRA), donor agencies and civil society.

## 2. Opening Ceremony

The conference was officially opened by the Director of Administration in the Department of Energy Mr. Maxwell Tsisti. Also making opening remarks was the CEM National Coordinator, Mr. Edgar Kapiza Bayani



Figure 1 The top table (l-r) Mr Edgar Kapiza Bayani, National Coordinator CEM, Kelvin Tembo, Community Energy Malawi (CEM) Chair and WASHTED department of Blantyre Polytechnic; Joseph Kalowekamo, Department of Energy; Mr Tsitsi, Guest of Honour from the Ministry of Energy and Environment; Nicholas Gubbins, CEO of Community Energy Scotland.

### 2.1. Welcoming Remarks

In his opening remarks, the National Coordinator (NC) welcomed all the delegates to the conference before unpacking the conference rationale, objectives and expected outcomes. The key point in the remarks was an appeal to the delegates to deliberate extensively on issues affecting the community energy sub sector. Quoting current statistics on energy access in Malawi, the NC informed the conference that Malawi still has a long way to achieve SE\$4All goals among others. The NC stressed that the conference will draw upon experiences from the people who are actually taking forward community energy projects with a view of providing practical feed back to policy makers and regulators that include Ministry of Finance Taxation Department, Malawi Revenue Authority, Department of Energy as well as energy users like Ministries of Education, Agriculture and Health.

### 2.2. Conference Objectives/Outcomes

The conference was organised with a focus on the opportunities and challenges relating to securing access to, impact of and sustainability of Renewable Energy Technologies in Malawi by drawing upon the experiences of community groups taking forward actual projects.

Specifically, the following outcomes are expected;

- Improved networking of stakeholders in the Renewable Energy Sector
- Prioritisation of issues on access and sustainability of Renewable Energy Technologies for consideration by government, donors and energy users



- Launch of Community Energy Malawi
- Launch of the Energy Tool Kit for use by Renewable Energy Stakeholders

### **2.3.Key Note Address**

Mr Tsitsi thanked participants for attending and mentioned that the conference was being held at a good time to brainstorm solutions to some of the energy issues that the country is facing. He apologised on behalf of the Principle Secretary for the Ministry as she was out of Lilongwe on duty. He acknowledged the presence of participants from various private organisations and government to discuss the communities' access to renewable energy.

Mr Tsitsi discussed the energy situation in Malawi, in particular that only 9% of the population is electrified with 1% in rural areas having access to electricity. This is below average Sub-Saharan African access to electricity which is at 25% and 10 % in rural areas. It was stressed that Malawi is not faring well looking at these figures and this has forced rural populations to depend heavily on biomass whose increased consumption leads to deforestation. Attendees were reminded that the Malawi Growth and Development Strategy Papers 1 and 2 as well as the Economic Recovery Plan emphasise the need to improve access to electricity for peri-urban and rural areas to reduce poverty and increase economic growth.

It was discussed that the Malawian Government has put in place two key strategies to increase access to electricity. One is to extend the electricity grid through MAREP (Malawi Rural Electrification programme) where 81 trading centres have been ear marked for electrification with 30 trading centres already being electrified. The second strategy is public private partnerships with emphasis on geothermal, hydro, wind and solar technologies. It was discussed that the Government understands that geographical barriers mean that some areas are hard to reach with the national grid. The Government is willing to encourage investors in community solar, biogas, mini/micro hydro and wind projects in these instances. The Government installed 6 community hybrid systems, 2 in each region. Stakeholders were encouraged to learn from challenges and opportunities of this programme and come up with strategies to implement energy projects.

The Malawi Government has demonstrated commitment to energy issues as in 2003 National Energy Policy emphasized the need for clean energy production and consumption such that it wants to reach out to 30% of the rural Malawian population by 2030. With the above targets Malawi Government is willing to work with other stakeholders including MuREA, CEDP and the private sector including the support of clean and efficient cook stove production programme. The work on the Bondo Hydro Electricity Power Station was highlighted and stakeholders were encouraged to work together to increase the access of rural people to energy and come up with interventions. Mr Tsitsi finished his speech by thanking the Scottish Government for their financial and technical support.

### 3. Key Messages From Presentations

There were in total 9 presentations made at the conference. Speakers were drawn from community groups, academia, Department of Energy, Malawi Revenue Authority and the Civil Society. Below are key points from the presentations.

#### 3.1. Experiences from Communities on Access, Impact and Sustainability- Balaka under Concern Universal

Solar PV installations were completed in 2010 and currently the whole system is working. The benefits of the system were discussed which included:

- Teachers can easily prepare for classes at night.
- As the school was not previously connected to the national electricity grid, most teachers did not want to work there. Before the project there were 6 teachers but since the installation of the Solar PV, there are now 14 teachers working at the school.
- Pupils come to the school to read at night
- The school pass rate has risen with pupils being selected to national secondary schools not only to district and community day secondary schools.
- Enrolment has increased at the school.
- One community member has been employed at the school to watch the system. People come to watch TV (and are excited to be able to watch the world cup!) as well as charging phones.
- To help maintain the system, three technicians from the community were trained in minor service, 1 science teacher and two radio technicians.

Overall, the community is benefiting a lot from the system. Some conference attendees asked how much money the community has for maintaining and repairing the system. Mr Chiwaya answered that the community has a balance of MK78,000 and these funds are used to employ a security guard to protect the system. The system is managed through a community forum as well as through the chiefs.



Figure 2 CEDP Central Region Development Officer, Blessings Mbendera, examining the stand of Powered by Nature.



### **3.2.Experiences from Communities on Access, Impact and Sustainability- RE Projects under Community Energy Development Programme**

Mr. Hevvens Theu, made a presentation on behalf of the 12 Community Based Organisations (CBOs) implementing RE Projects in 12 Districts of Malawi.

Mr Theu named all of the Community Based Organisations (CBOs) that have been working with the CEDP as well as the type of project that communities have undertaken. For full details of this information see the Community Energy Malawi website: [www.communityenergymalawi.org](http://www.communityenergymalawi.org) . The challenges that communities are anticipating were discussed for example the replacement of components such as batteries, inverters and regulators.



*Figure 3: Mr Hevvens Theu giving his presentation on the CEDP*

The CEDP DO from the North, Sithembile, added to Mr Theu’s presentation that each CBO has worked on a business plan which sets out ideas for generating income from the installation of projects in their community. For example, charging of mobile phones, setting up a barber shop or charging institutions that have installed system to pay a monthly fee for electricity (the amount charged must be affordable by the community). Sithembile discussed how it was important that we brainstorm how to make systems more sustainable.

### **3.3.Sustainability of Solar PVs in Malawi: Lessons from a PhD Study in Malawi by an experienced Energy Expert**

Dr. Arnold Mwanapwa Juma of Mzuzu University, Energy Studies Department, discussed the findings from his PhD study which examined the sustainability of Solar PV systems in Malawi. The main findings were that most solar systems in Malawi only operate for a short period of time before they fail. Dr Juma explained how using entrepreneurship models are key to ensuring system sustainability. The example of the Government funded solar villages failing was discussed, in particular the “solar village” model was found to be unsustainable because they are:

- **Too costly** for a community to maintain. For example, at Elunyen solar village there are 200 households which each pay k300/month to use the water supply system (total income of K60,000/month). This income needs to cover the cost of a security guard (k20,000/month) as well as the replacement of parts. There are 100 batteries



in the system, of these, 60 batteries are broken. Each battery costs K120,000 to replace and this cost is too large for the community. This was reported to the Government but there were no resources to replace these batteries so the system has not worked for 4 months.

- **Too complex** to manage, systems are complex and require technical specialists in order to carry out maintenance and repairs. This level of skill is not present in the community and so the community need to buy in this expertise, a further cost that the community cannot afford.

### **Recommendations**

- ✓ Decentralised systems are more sustainable –it is best for communities to manage their own energy
- ✓ Single home systems (such as those at Chimonjo and Chitala).The project started with community sensitization. A number of women from the community were sent to India for training in basic solar engineering by Bare Foot Engineers. On returning to their communities, a workshop was built and the trained women are able to install and maintain solar PV systems. This availability of local expertise is critical for system sustainability
- ✓ Establishing a village savings and loans system in the community is vital as it helps the community to manage costs and pay for the systems themselves.
- ✓ Wherever possible it is important to move away from a reliance on DONATIONS. The strategy should be based on “selling” as opposed to “donating” the technologies on the part of the project sponsors and “buying” as opposed to “receiving” on the part of the beneficiaries.
- ✓ The supply chain should consist of entrepreneurs in the form of importers (solar firms) who supply the local market with the technologies and middlemen (dealers) that buy, sell and install the technologies in the rural areas.

### **Sustainable Strategy**

- ✓ The Government has a role to play in terms of removing tax on renewable energy parts, this decreases the overall price and makes systems more accessible in rural communities.
- ✓ Financial institutions can also support businesses to venture in solar system businesses.

## **3.4.Developing Community and Renewable Energy in Malawi: Regulatory Considerations, Opportunities and Challenges**

The MERA Chief Executive Officer, Mr. Ralph Kamoto, first congratulated CEM for organising the conference which brought together various payers in energy.

He informed the conference that, MERA was established by the 2004 Energy Act to regulate the activities of the energy sector. Mr Kamoto outlined the key energy acts and policies that have been brought in by the Government of Malawi (see his presentation for more detail on



this) as well as the different licenses that are needed by those that generate and sell electricity. This is very useful information for those that are looking to generate and sell electricity.

Mr Kamoto concluded by discussing the key opportunities open to those involved in the generation of electricity:

1. MERA may prescribe special and less onerous licensing regulations in respect of applications for rural electrification (there are examples in his presentation)
2. Availability of a Rural Electrification fund. However, it was clarified during questions that this fund is not open to NGOs or private organizations. This fund is to fund MAREP (see item 2.3).

### **3.5.Unveiling Community Energy Malawi (Outlining CEM Background, Mission and Objectives and Membership Categories)**

Mr. Kelvin Tembo, Interim Board Chair for CEM unveiled CEM. The mission statement was read out as

*“To enable communities in Malawi to create sustainable renewable energy solutions to meet their energy needs”*

along with information on how CEM will achieve this mission statement. The fact that CEM is a membership based organisation was discussed as well as the membership categories, full membership (open to not for profit organisations like NGOs, FBOs and CBOs) and Associate Membership (Open to governmental or para-statal organisations, academic institutions, individuals, students, consultancy firms, research institutes and private businesses). The benefits of becoming a member were discussed.

The benefits of becoming a **Full Member** include:

- Free advice and support on technical, legal and financial aspects of setting up your community energy project
- Receive quarterly newsletter **Community Energy News**
- The chance to network and share experiences with other Community Members
- The ability to nominate a Director to the CEM board
- Voting rights at the CEM Annual General Meeting
- Being part of a collective lobbying voice on issues important to your project

The benefits of being an **Associate Member** include:

- Notifications when **tenders** are first published this includes automated notifications when tenders are published on our website.
- Increased profile of your organisation within the community energy sector
- Listing of your business profile and details on CEM website and CEM Business Directories
- Receiving the quarterly CEM newsletter containing news from across CEM’s members networks
- Opportunity to sponsor/discount on **exhibition space** at Community Energy Malawi conferences and events.



- Opportunity to support our **Community Energy Malawi' Member training programme.**
- As for academic institutions, opportunities to attach their students with members of the organisation



Figure 4 Mr Kelvin Tembo unveiling CEM

The conference was also informed that CEM is keen on developing a model for decentralised community energy management which among others will see the establishment of Energy Committees and Energy Plans in communities in which it works.

Following this presentation, CEM was formally launched by unveiling of the CEM colours and mission statement by the Guest of Honour, Mr Tsitsi.



Figure 5 The unveiling of CEM led by Guest of Honour Mr. Maxwell Tsitsi assisted by CEM Board Chair Mr. Kelvin tembo and CEM National Coordinator Edgar Bayani

### 3.6. Launching the Community Renewable Energy for Malawi

The duo that led the development of the Tool Kit, Martin Katembo of MUREA and Sarah Jones of Community Energy Scotland (CES), introduced the Toolkit to the conference



- This presentation started with a discussion over the initial conditions that had brought about the development of the toolkit, namely the identification that there was little unbiased advice on renewable energy in Malawi. The aim of the toolkit was to produce a standardised, step by step guide to communities and developers of projects on how to proceed with projects. How the toolkit was developed through collaboration with key stakeholders and community groups was also described.
- The Primary Toolkit was described (a written document aimed at development workers and community members with higher literacy levels) as well as the Secondary Toolkit (a booklet including information on how to maintain main renewable energy technologies in Malawi and a set of 40 diagrams displaying key messages from the toolkit)
- The presentation concluded with information on how to access electronic copies of the toolkit from the CEM website: [www.communityenergymalawi.org](http://www.communityenergymalawi.org) and the distribution of hard copies of the toolkit to community groups and key stakeholders

### **3.7. Unpacking opportunities and challenges faced by Community Energy Service Providers in sustainability of RE Projects**

Mr. Yamungu Botha presented on experiences of NGOs helping communities to implement RE Projects. Yamungu gave a presentation on Concern Universal's solar PV intervention targeting primary schools. Yamungu started by giving an overview on renewable energy and why it is important to carry out renewable energy projects in Malawi. Yamungu discussed the opportunities in the sector in particular triple layered advocacy towards sustainability:

- Local Level - Local Solutions, e.g. Meaningful income generating activities at Community Level
- Councils - Institutionalised support at District level
- Central Government - Mainstreamed financing and positive policy shifts

Yamungu discussed how the installation of Solar PV systems in schools has been designed to increase teacher retention in rural areas

### **3.8. Energy Policy and Development of RETs and Community Energy in Malawi**

The Deputy Director of Energy, Mr. Joseph Kalowekamo stated that national energy policy provides an opportunity to develop renewable energy technologies in communities. Mr Kalowekamo appreciated the fact that most people are not connected to the national grid even if they are within an area with grid connections available. Studies can be made to investigate why people are not connecting to the national grid despite there being access to the grid. There was a discussion over the Government policies that have been introduced to encourage renewable energy in Malawi as well as Government projects that have been brought in to support renewable energy. Various government policies recognise a need to promote renewable energy technologies such as the Economic Recovery Plan and Malawi Growth Development Strategy Paper II. To ensure that Malawi moves forward, Mr Kalowekamo said that we need:

- For private sector, NGO, Academia, CBO etc to participate in community energy interventions



- Strengthen coherence/Coordination
- Avoid duplication of effort
- Periodic review of implementation progress

**At this point Mr Kamoto from MERA made a remark** - The Malawian Government has removed duty and VAT on renewable energy technologies being imported and Surtax is being looked into. Parts and spares for solar have no import duty. Solar panels are subject to a customs import tax. Stakeholders should bring their views when they meet the Minister of Finance during budget consultation meetings.

### **3.9. Moving forward with CEM**

The Community Energy Scotland (CES) Chief Executive Nicholas Gubbins discussed how the process of establishing the organisation of “Community Energy Scotland” provided learning points for CEM. Mistakes were made along the way and CES does not want CEM to make the same mistakes! Nicholas talked about how many of the technologies that community groups in Scotland use are similar to those used in Malawi. For example a large number of solar panels with a large battery bank is used on the island of Foula in the Shetland Islands off the north coast of Scotland. Communities that CES has worked with have identified that their projects are only sustainable if they are able to generate some form of income and if community groups are confident and competent at managing those systems themselves, the same situation as in Malawi. Nicholas concluded by saying that Community Energy Scotland is delighted to be working alongside CEM at this exciting point and is confident that the right tools are in place to make CEM a success

### **3.10. Key Questions and Discussion Points from presentations**

The presentations made attracted questions and comments that culminated into discussions in the process. Notably were the following questions:

- ✓ A question was asked about the health centres that have had Solar PV systems installed under the CEDP, how is the system operating in Namanja Health Centre, Machinga District?
  - The CEM /CEDP Development Officer South, Mavuto Banda answered that the community based Energy Committee looks after energy issues at the health centre and they are involved in various businesses to generate funds for replacement of the components.
- ✓ Another question was asked as to who is responsible for doing a feasibility study in relation to Solar Villages?
  - The conference was informed that the systems are good but batteries have out lived their life span of 5 years (from 2007 to 2014) and are expensive to replace. (question not fully answered)
- ✓ Community groups quizzed Government, as to what it is doing to solve the problem with Solar batteries (i.e. that they are expensive and need replacing often)
  - The conference was informed that batteries were introduced and so as to store energy during the day for use during the night. But as it is proving very costly, government is



looking at ways of how best users can store energy in a more efficient and cost effective manner. Government also challenged private sector to consider investing in manufacturing of batteries because currently the country is importing such components making them expensive.

- ✓ Representative from Fwasani CBO asked the High Table and is quoted: “We are now 50 years old and we cannot make our own materials for renewable energy systems, are we moving forward or in reverse?”
  - This question attracted generated more interest in the delegates and several attempts were made to answer it. Among others the conference agreed that Malawi was not long ago able to manufacture some things right here which is no longer the case. Conclusively, the conference challenged academic institutions and government to initiate innovative curricula that can challenge graduates to invent or manufacture.

#### **4. Moderated Discussion: Improving Access, Impact and Sustainability of Renewable Energy Systems**

As a way of prioritising issues in line with the conference theme, delegates to the conference were engaged in a discussion moderated by Messers Benjamin Chikusa and Mavuto Kambochola Banda. The discussion was aimed at critically analysing constraints to Community Access and Sustainability of Community Energy Projects. It specifically sought to come up with action points and recommendations for the various stakeholders in the Community Energy Sub Sector.

The following were discussed and as observed, the issues inter twine so much such that other points affects both access and sustainability:

##### Discussion 1: Poor Access to RETs by rural Communities

The conference agreed that there still remain bottlenecks for rural communities’ to access RETs. Among others the conference noted the following as factors causing this;

- The cost of maintaining systems and buying new components is making access a challenge in areas where renewable energy systems are most needed; in rural areas where available income is low
- Taxation regimes are making components expensive
- Failure of Malawi to produce its own RE equipment or components

On Taxation however, the MRA representatives and officials from Ministry of Finance, were quick to point out that it is difficult for government to offer tax holidays virtually on anything as this reduces tax base. They clarified that much as government would want to make things affordable, it equally has an obligation to offer other services which can be compromised if they reduce the tax base. They further advised that when an organisation has convincing reasons they can request for a waiver from the Minister of Finance who can grant that if necessary.

##### Discussion 2: Poor Mainstreaming of Energy Issues in Development Plans

The conference observed that energy issues are still considered in isolation when it comes to planning for development. It was cited that currently energy issues are not featured in Village



Development Plans and that in District Development Plans for example energy issues are only discussed in passing under Forestry or Environment chapters. It was also observed that in cases where installations are done on schools or health centres rarely will the parent ministries or departments see this as contributing towards their core functions such that when there is need for maintenance they will reluctantly contribute.

The lack of Energy Officers at the District level was cited as a major challenge coupled with absence of councillors. This absence of District Energy Officers was seen as one major factor resulting in low featuring of energy issues at the District Level

Linked to poor representation of community energy issues is the fact that often conferences or meetings deliberate on issues affecting rural masses without the rural inhabitants themselves being represented. This it was observed, leads to development of policies or solutions that do not reflect the context on the ground.

#### Discussion 3: Lack of Coordination between and among energy players in Malawi

The conference observed that there still exists uncoordinated implementation of renewable energy interventions in Malawi resulting in repetition of efforts, resource wastage as well poor learning from each other. The conference therefore applauded the initiatives by CEM in hosting this first ever National Community Energy conference as well as efforts to bring together energy players in a membership driven organisation.

#### Discussion 4: Lack of clear sustainability direction by most installations

The conference observed that many organisations or service providers cut their engagement with communities just after installations. It was noted that rarely will organisations provide end user training to communities let alone guide them as to where they can source components when need for maintenance arise as dealers/service providers are located in towns.

Another factor mentioned as contributing towards poor sustainability is that RETs made available in Malawi are not client friendly and suitable for Malawi communities. The need for understanding the market preferences before importing products was underscored.

Political interference was also mentioned as one cause of poor sustainability of installations. The conference observed that the increase in hand out culture often perpetuated by politicians has encouraged communities to fold their hands and wait for their political leaders to fix their problems.



## 5. Conclusions and Recommendations

The conference, the first of its kind is a step in the right direction for the development of community energy in Malawi. By involving the communities who are actually implementing RE projects and benefiting from the same, the conference really achieved its aim of dialoguing on Community Access, Impact and Sustainability of RETs in Malawi. Specifically the conference underscored the importance of decentralised management of energy as advocated under the CEM model.

Realising that there is lack of coordination among players, the conference recommended that:

**Recommendation 1:** There is need for players in the energy industry to join hands and work together as a coordinated unit. The CEM model of membership based organisation is a step in the right direction and it is important for players to become members.

Noting that there is still poor access to RETs by Malawian communities, the conference recommended that:

**Recommendation 2:** As a country we can start manufacturing some solar components. Private sector should make sure that they visit rural areas and that banks and government must create favourable conditions to stimulate investment into manufacturing of RE gadgets.

**Recommendation 3:** Community groups represented at the conference were of the view that Donor funds should go directly into the communities rather than in offices to be spent on workshops. Money spent in this way has a greater impact

**Recommendation 4:** academic institutions should rework their curriculum to introduce courses aimed at producing graduates who can offer practical solutions to Malawi's problems e.g. who can venture into manufacturing of RE equipment or gadgets and so as to make them affordable.

Concerned with inadequate decentralised structures for Energy in Malawi resulting in poor planning of energy issues at village or district level, it was recommended as follows:

**Recommendation 5:** Donors should consider funding organisations like CEM who are working on establishing a decentralised model for community energy in Malawi. Such funds will go a long way in sensitising the masses on the potential of RETs in meeting community energy needs as well as building their capacity in planning and implementing energy projects.

**Recommendation 6:** District Councils should be lobbied to ensure that Energy issues are included in the Village Development Plans

**Recommendation 7:** Now that we have councillors, there is need to organise an orientation for councillors on energy issues and how to plan them at Village, Ward and District Level

**Recommendation 8:** Organisations, donors or service providers when organising Workshops, Consultative Meetings or Conferences should ensure adequate representation of the rural people or beneficiaries of projects as was the case at the conference.



Concerned with poor sustainability of RE projects in Malawi as a result of poor direction in sustainability of installations, it was recommended that;

**Recommendation 9:** Community engagement is very important for sustainability, communities need to be brought into the development process at the earliest possible stage and given the right training and support

**Recommendation 10:** The development of new products or components should be research based

**Recommendation 11:** Wherever possible we need to move away from a donor dependency culture which is not healthy and not sustainable in the long term. We need to explore new business models that do not rely on foreign donations to install renewable energy technologies in rural areas in Malawi. In the words of Dr Juma, “the strategy should be based on “selling” as opposed to “donating” the technologies on the part of the project sponsors and “buying” as opposed to “receiving” on the part of the beneficiaries.”

## 6. Closing Remarks

The guest of honour, Mr. Tsitsi said he was impressed that all participants had actively participated in the event. He said participants have been challenged through good questions such as “is our country moving forward” from one of the community participants from Mzimba. Mr Tsitsi assured attendees that the Government of Malawi is committed to tackling energy issues as it had been outlined in His Excellency’s state of the nation address where he said that government is geared to introduce alternative sources of energy – solar, wind and biogas. He finally appealed for all energy stakeholders to improve on coordination and work together.



## Annex 1: Conference Programme



### THE 2014 NATIONAL ENERGY CONFERENCE, NATURAL RESOURCES COLLEGE, MALAWI

19<sup>TH</sup> JUNE 2014

#### 1.0 INTRODUCTION

Community Energy Malawi (CEM) is Malawian led and membership driven organisation with a mission **“To enable communities in Malawi to create sustainable renewable energy solutions to meet their energy needs”**. It is born out of the Community Energy Development Programme (CEDP) under the Scottish Government’s funded Malawi Renewable Energy Acceleration Programme (MREAP)

Our aim is to mobilise community energy focused organisations and individuals into one mutually supportive network that can influence policy and initiate renewable energy solutions for the betterment of Malawians. This is Malawi’s first national community energy conference to be organised by CEM.

The Conference theme is **“Community Access to, Impact and Sustainability of Renewable Energy Technologies in Malawi”**

#### 2.0 EXPECTED OUTCOMES

In general, we hoped that the conference will contribute significantly towards the Energy Policy review process as well as open up opportunities for Malawi to benefit from the United Nation’s SE4All Initiative (Sustainable Energy for All). Specifically, the following outcomes are expected;

- Improved networking of stakeholders in the Renewable Energy Sector
- Prioritisation of issues on access and sustainability of Renewable Energy Technologies for consideration by government, donors and energy users
- Launch of Community Energy Malawi
- Launch of the Energy Tool Kit for use by Renewable Energy Stakeholders

#### 3.0 APPROACH OF CONFERENCE

The conference will focus on the opportunities and challenges relating to securing access to, impact of and sustainability of Renewable Energy Technologies in Malawi by drawing upon the experiences of community groups taking forward actual projects.

The Conference will be officially opened by the Principal Secretary for Energy, Ms. Nwazi Mnthambala who will also give a key note address.



As a way of drawing upon practical, grassroots experiences from ongoing initiatives, there will be presentations from Community Groups who are benefitting from Renewable Energy technologies. There will representation from communities across Malawi who have taken forward a range of different renewable energy projects.

The experiences from the community groups will also be complimented by further presentations from Non Government Organisations who are supporting communities in Renewable Energy Technologies There will be further insight from an Energy Expert who carried out extensive research on the Sustainability of Solar PV technologies in rural areas of Malawi as part of his PHd thesis.

As the conference is meant to initiate positive engagement between and among various stakeholders with government, the Director of Energy will outline government’s policies on Energy. Then, the Chief Executive Officer for Malawi Energy Regulator Authority will also make a presentation on regulatory considerations that stakeholders must bear in mind when initiating RETs (Off Grid Solutions).

It is hoped that from these presentations/speakers, the conference will dialogue on issues bordering on access, impact and sustainability of Renewable energy technologies.

#### The Timetable

<b>Time</b>	<b>Event</b>	<b>Responsible</b>
7:30	Registration and distribution of CEM Flyers and viewing displays	Community Energy Malawi
8:15h	Conference Participants seated	Director of Ceremonies
8: 25h	Guest of Honour (PS for Energy Ms. Nwazi Mnthambala) Arrives and given a tour of the displays	Community Energy Malawi Board Chair, Community Energy Malawi National Coordinator and Community Energy Scotland Chief Executive
8:40h	Welcoming Remarks	Director of Ceremonies
8:45h	Introductions	Director of Ceremonies
9:00h	Key Note Address and Official Opening of Conference	Principal Secretary Energy Ms Nwazi Mnthambala
9:25h	Unpacking the Conference (Overview of Theme and purpose of Conference)	National Coordinator, Mr. Edgar Kapiza Bayani
9:35h	Experiences from Communities on access, impact and Sustainability	Concern Universal Energy Committees (Balaka)
9:45h	Questions and Answer Session	Director of Ceremonies
10:00h	Tea Break	Natural Resources College
10:30h	Experiences from Communities on access, impact and Sustainability	Community Energy Development Programme Representative
10:40h	Question and Answer Session	Director of Ceremonies
10:45h	Experiences from Communities on access, impact and sustainability	Research Create Affordable Activities for the Poor & Orphans (RECAPO) Solar (Off Grid Business Concepts)



11:05h	Questions and Answer Session	Director of Ceremonies
11:10h	Sustainability of Solar PVs in Malawi: Lessons from a PhD Study in Malawi & an experienced Energy Expert	Dr. Arnold Juma, Mzuzu University
11:20h	Question and Answer Session	Director of Ceremonies
11:30h	Developing Community and Renewable Energy in Malawi: Regulatory Considerations, Opportunities and Challenges	Mr. Raphael Kamoto, CEO MERA
11:45h	Question and Answer Session	Director of Ceremonies
11:50h	Unveiling Community Energy Malawi (Outlining CEM Background, Mission and Objectives and membership categories)	Kelvin Tembo, Community Energy Malawi Chair
12:00h	Lunch is Served and participants free to network and view kiosks	Natural Resources College
13:30h	Launching the Community Renewable Energy Toolkit for Malawi	Sarah Jones of Community Energy Scotland and Martin Ketembo of MuREA
13:45h	Question and Answer	Director of Ceremony
13:50h	Unpacking opportunities and challenges faced by community energy service providers in sustainability of RE Projects	Yamungu Botha, Concern Universal
14:00h	Question and Answer	Director of Ceremonies
14:05h	Energy Policy and Development of RETs and Community Energy in Malawi	Directorate of Energy Affairs
14:15h	Question and Answer	Director of Ceremonies
14:20h	Break-out Sessions: Groups to come up with proposed action points on How to Improve Access and sustain	Director of Ceremonies



## Annex 2: List of Conference Participants

#	Name of participant	Organisation
1	Mr. Maxwell Tsitsi	PS Energy
2	Mr. Joseph Kalowekamo	Deputy Director of Energy
3	Mr. Topham Sukasuka	Assistant Director of Energy
4	Pr. Shadreck Chinyama	Malawi Fellowship for the disabled
5	Simon Gumbo	Malawi Fellowship for the disabled
6	Patrick Kwapata	Rejoice Foundation
7	Dickens Chiutsi	Rejoice Foundation
8	Dan Kaunda	Better Life for All
9	Oliver Ndlovu	Better Life for All
10	Trygve Mongstad	Kumudzi Kuwale Limited
11	Geoffrey Kasambandopa	Kumudzi Kuwale Limited
12	Mphatso Kampeni	Landirani Trust
13	Nyomi Rowsell	Landirani Trust
14	Chifundo Msadala	Christian Aid
15	George Eric Kaunda	MAICC
16	Desire Mwasikakata	MAICC
17	Jephter Ngwira	Outreach Scout Foundation
18	Amon Lukhelwe	Outreach Scout Foundation
19	Isabel Chirwa	Outreach Scout Foundation
20	Siyaphera Makunganya	Energy and Environmental Centre
21	Vincent Patel	Green Energy
22	Roy Saopa	Green Energy
23	Richard Magalasi	Green Energy
24	Arjan Visser	Electricity 4 All
25	Deus Byson	Electricity 4 All
26	Fredrick Munthali	National Commission for Science and Technology
27	Evans Chinthenga	National Commission for Science and Technology
28	Robert Matengula	RECAPO
29	Emmanuel Kaliwo	RECAPO
30	Matrina Mpeketula Soko	CICOD
31	Laston Zungu	CICOD
32	Kelton Somanje	Mithungu Youth Organisation
33	Limbani Kambauwa	Environmental Restoration Outreach Programme
34	Masautso Ngoma	Environmental Restoration Outreach Programme
35	Kasuzi Cornex Mbaluko	Centre for Sustainable Integrated Development
36	Flora Ngombende	Department of Buildings
37	Mcchancy Kamanga	Total Malawi Limited



38	James Banda	Total Malawi Limited
39	Angston Mlangeni	Natural Resources College
40	Principal Mdolo	Natural Resources College
41	Elijah Kamundi	Natural Resources College
42	Washington Chimuzu	InfraCon Limited
43	Janet Msiska	MAEVE
44	Gift Richard Maloya	Plan Malawi
45	Smuel Banda	Plan Malawi
46	Dorothy Tembo	Center for Environmental Policy and Advocacy
47	Etta M'mangisa	UNDP
48	Jan Rijpma	UNDP
49	Raphael Kamoto	MERA-Chief Executive
50	Dr. Donald Kamdonyo	DFID
51	Stella Kamkwamba	Ministry of Agriculture
52	Dr. Clodina Chowa	Ministry of Agriculture
53	Dr. Dalitso Kabambe	Ministry of Health
54	Mrs Chirwa	Ministry of Health
55	Mr Chiphiko	Ministry of Health
56	Mr. Maxwell Tsitsi	Ministry of Energy
57	Kelvin Mpheri	Ministry of Finance
58	Martha Chizimba	Ministry of Finance
59	Felix Nkhoma	Ministry of Finance
	Job Mwamlima	Ministry of Education
60	Rolland Sakala	Ministry of Education
61	<a href="#">Klaus-Dieter</a>	Pamnthuzi
62	Chris Walker	Pamnthuzi
63	Jordan Semeon Phiri	MBC
64	Arthur Chokhotho	MBC
65	Yamikani Lanjesi	MBC
66	Benjamin Chikusa	Interprator
67	Erasmus Lloyd M'bwana	Press-Montfort Media
68	Nicholas Gubbins	Community Energy Scotland
69	Sarah Jones	Community Energy Scotland
70	Olyvia Gubbins	Community Energy Scotland
71	Grace Gubbins	Community Energy Scotland
72	Kelvin Tembo	Board Chair-Community Energy Malawi
73	Dr. Arnord Juma	Mzuzu University and CEM Board Member
74	Mr. Kondwani Gondwe	Mzuzu University and CEM Board Member
75	Mrs. Harriet Chiwaula	MERA and CEM Board Member
76	Mr. Yamungu Botha	Concern Universal and CEM Board Member
77	Mr. Vincent Gondwe	Total Land Care Green and CEM Board Member



78	Mr. Edgar Kapiza Bayani	CEM-National Coordinator
79	Mr. Blessings Mbendera	CEM Regional Coordinator Center
80	Mr. Mavuto Kambochola Banda	CEM Regional Coordinator South
81	Mrs. Sithembile Tembo Nyirenda	Cem Regional Coordinator North
82	Ms Alllen Chauluka	CRED Project Malawi Energy Committttee
83	Mr. Frackson Pemba	CRED Projects-Chikwawa
84	Lidesi Simwaka	CEDP Chitipa
85	Hoften Mtambo	CEDP Chitipa
86	Lyton Kaonga	CEDP Chitipa
87	William Makina	CEDP Nkhotakota
88	Veronica Edward	CEDP Nkhotakota
89	Kennedy Kayere	CEDP Nkhotakota
90	William Chiliro	CEDP Likoma
91	Kondwani Binga	CEDP Likoma
92	Andiran Chanza	CEDP Likoma
93	Heavens Theu	CEDP Mzimba
94	Gloria Ngoma	CEDP Mzimba
95	Manson Mphande	CEDP Mzimba
96	Elizabeth Benson	CEDP Dowa
97	Estele Kaimira	CEDP Dowa
98	Wilson Grey Mkanakufa	CEDP Dowa
99	Amos Mphande	CEDP Ntchisi
100	Joyce Macloud	CEDP Ntchisi
101	Alfred Banda	CEDP Ntchisi
102	Laines Sauti	CEDP Lilongwe
103	Besita Kunsauka	CEDP Lilongwe
104	Daniel Jason	CEDP Lilongwe
105	Innocent Justin	CEDP Balaka
106	Andrew Yokoniya	CEDP Balaka
107	Livineti Braim	CEDP Balaka
108	Laudoni Tibu	CEDP Machinga
109	Gladys Edward	CEDP Machinga
110	Garnet Chikwanje	CEDP Machinga
111	Mercy Lozani	CEDP Neno
112	Moses Gadama	CEDP Neno
113	Dinnes Chiphiko	CEDP Neno
114	Fanny Makwale	CEDP Phalombe
115	Tonic Adam	CEDP Phalombe
116	Sunganani Kamchenga	CEDP Phalombe
117	Felix Kasambeni	CEDP Nsanje
118	Eliza Sampanya	CEDP Nsanje
119	Livingstone Gaulo	CEDP Nsanje



120	Vailet Tambala	Concern Universal Power Points Balaka
121	Felesiya Makawa	Concern Universal Power Points Balaka
122	Loyd Chiwaya	Concern Universal Power Points Balaka
123	Ryan Cassidy	Chisitu
124	Alex Damaliphetsa	National Coordinator UNDP-GEF
125	Klaus D. Neumann	GOPA
126	Catherine Mfitilodze	GOPA
127	Greshom Sichinga	World Bank
128	Dalitso Kafuwa	World Bank
129	Martina Kunert	RENAMA
130	Phillip Blatt	Powered by Nature
131	Peter Killick	General Manager, MEGA Limited
132	Mbumba   Chigalu	Maeve Project
133	Angela Magwede	Maeve Project
134	Francois Gordon	Sunny Money
135	Drew Corbyn	Business Innovation Facility