



**CORE INTERNATIONAL, INC.'S  
REPORT ON FOLLOW-UP ASSISTANCE IN RURAL  
ELECTRIFICATION PLANNING TO THE GOVERNMENT  
OF THE REPUBLIC OF ZAMBIA  
LAG-I-00-98-00010-00, Task Order No.3**

**Submitted To**

**U.S. Agency for International Development  
Office of Energy and Information Technology  
Economic Growth, Agriculture and Trade Bureau  
Washington, D.C. 20523**

**Submitted By**

**CORE International, Inc.  
Washington, D.C.**



**June, 2003**

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## **ACKNOWLEDGEMENT**

The Department of Energy (DOE), Ministry of Energy and Water Development (MEWD), the Rural Electrification Working Group (REWG) of Zambia, and CORE International, Inc. jointly prepared portions of this report. The U.S. Agency for International Development (USAID), Office of Energy & Information Technology within the Bureau of Economic Growth, Agriculture & Trade (EGAT) and the USAID Mission in Gaborone, Botswana, were supportive as well.

The DOE within the MEWD provided leadership on the preparation of the Overall Action Plan for Rural Electrification in Zambia, which is part of this report. Mr. Oscar Kalumiana, the Deputy Director of Energy, took the lead role in mobilizing the work of both the REWG and CORE International, Inc. Mr. Sichinga Austin C. J., Ph.D., Permanent Secretary at the MEWD, strongly supported the results achieved during CORE's Team mission in Zambia. In addition, he confirmed Zambia's commitment to accelerate the rural electrification process.

CORE International is very appreciative of the REWG, whose members devoted an extensive amount of time and resources to this effort. We would especially like to mention the following stakeholders from Zambia:

Mr. Sichinga Austin C. J., Ph.D.	Ministry of Energy and Water Development	Permanent Secretary
Mr. Wilfred Serenje	Department of Energy, Ministry of Energy and Water Development	Director
Mr. Oscar Kalumiana	Department of Energy, Ministry of Energy and Water Development	Deputy Director
Mr. Charles Molenga	Department of Energy, Ministry of Energy and Water Development	Economist
Mr. Clement Sasa	Office for Promotion of Private Power Investment	Expert
Prof. J. M. Mwenechanya	Mclink Consulting Services	Director
Ms. Sozyo Ndovi	Zambia Consumer Association	Director
Mr. D. M. Mauzu	Private Consultant	Expert
Mr. Joseph Kapika	Energy Regulatory Board	Expert
Mr. Geoffery Musonda	Department of Energy, Ministry of Energy and Water Development	Specialist
Mr. Augustine Musumali	ZESCO Ltd.	Expert
Mr. Romance Sampa	K.P.A. Consulting	Director

CORE International would also like to acknowledge the technical guidance provided by Dr. Kevin Warr, Program Analyst, at USAID/EGAT/EIT; Washington, D.C. We also appreciate the support provided by the USAID Mission in Zambia, in particular the support provided by Mr. Cris Mayunda, Economic Growth Deputy Team Leader, and Mr. Dan Griffiths, Economic Growth Team Leader.

## **I. SUMMARY OF MISSION ACTIVITIES AND RECOMMENDATION**

A CORE International Team visited Zambia during the period of May 19 – 23, 2003, in order to perform a follow-up mission of the technical assistance provided to the Zambian Government one year earlier. In the beginning of 2002, the Government of the Republic of Zambia (GRZ) expressed their desire to implement a rural electrification (RE) plan, and requested assistance in its development from USAID, the World Bank, and other donors. Subsequently, CORE International was approached by USAID to provide assistance to the GRZ in their RE planning. Upon this request, in April of 2002, CORE sent a team of experts to Zambia to conduct a workshop and roundtable on “Rural Electrification Issues and Options in Zambia”. As a result of lessons learned from this mission, the CORE Team suggested that the GRZ create the Rural Electrification Working Group (REWG), an entity with the responsibility of developing the RE plan in Zambia. Upon establishment of the REWG, the USAID agreed to further assist the REWG and Department of Energy (DOE) in producing a RE development plan by sending the CORE Team back to Zambia.

Based on the positive impact and recommendations by the CORE Team from the previous year’s mission, the GRZ requested that USAID once again provide assistance through the CORE Team. The primary objectives of this most recent mission to Zambia were (i) to assist the GRZ in developing a blue print for rural electrification in Zambia, and (ii) to facilitate the establishment of the GVEP in-country consultations.

Annex 1 provides the agenda for the mission to Zambia for the CORE Team.

### **I.1 Background**

***Status of Rural Electrification in Zambia.*** Reducing rural poverty is a primary objective of the Zambian Government. The availability of affordable and reliable energy, especially electricity, is essential to increasing rural productivity and improving the quality of life. Under the Poverty Reduction Strategy Paper (PRSP), the Government of Zambia reiterates the importance of rural electrification and rural energy services for poverty alleviation. Simultaneously, donor agencies are looking for an integrated approach to RE and achieving sustainable Rural Development (RD), which is supported by an accelerated delivery of electrification and modern energy services to rural areas of Zambia. Zambia is prepared for international donors to work with Zambian counterparts to adopt the best practices from other countries and regions, and to create an integrated market based approach towards providing energy to all of Zambia.

Presently, approximately 2%, or 124,000 people out of the 6.2 million living in rural areas, have access to electricity even though Zambia is rich in hydro resources and is actually an exporter of hydro-electricity. Zambia realizes that

development in rural areas is constrained by a lack of reliable energy to support large and small-scale business and agricultural facilities that could assist in the reduction of poverty. In order to remedy this situation, the Zambian Government has devoted itself to achieve at least 15% rural electrification by the year 2012.

***Establishment of the Rural Electrification Working Group (REWG) and Expected Deliverables.*** In April 2002, CORE International, Inc., under USAID funding, prepared a “Desk Study on Rural Electrification Issues and Options in Zambia” and conducted a training course on this subject, which was very useful to all the participating representatives of many stakeholder groups in Zambia. In May 2002, a consultative roundtable meeting was held, with financial assistance from the USAID, to define a plan for rural electrification in Zambia. This roundtable recommended that the Ministry of Energy and Water Development (MEWD) establish a REWG with the objective of producing a blueprint for addressing rural electrification issues and needs in Zambia. The working group was asked to prepare this blueprint.

***New World Bank Program -- Increased Access to Energy Services.*** The Zambian Government and World Bank officials are discussing a concept paper titled “Increased Access to Electricity Services” (IAES), which is expected to lead to the development of a comprehensive project totaling US \$120 million, co-financed by IDA, GEF, the GRZ, SIDA, other donors, and the private sector. The project will focus primarily on increasing electricity access to the rural and semi-urban population throughout the country by increasing private sector participation. The timeframe for finalizing the preparation of IAES is March 2005.

An interim special unit will need to be created within MEWD. The primary responsibility of this unit would be to coordinate all activities leading to the establishment of a Rural Electrification Authority (REA) and initial management of the preparatory stage for full-scale implementation of rural electrification. This unit will also be expected to take responsibility of the formative stages for the World Bank proposed IAES project. In addition, it would be advisable to consider the inclusion of the RE stakeholder groups in the process of preparing the IAES project. The REWG would be the preeminent tool in achieving this.

## **I.2 REWG Workshop on May 21 – 22, 2003**

Upon arrival in Zambia, the CORE Team was informed of and invited to participate in a Workshop with REWG organized by the DOE. The CORE Team actively participated in the workshop, which focused on the following issues:

- Preparation of a draft outline of the GRZ's RE policy document (Section II).

- Development of a draft action plan for RE policy implementation with a timeframe of approximately two years, consistent with the IAES project schedule (Section III).
- Initiation of discussions on the establishment of the REA and the need to redesign and incorporate the Rural Electrification Fund (REF) into the REA (Section IV).
- Discussion of issues related to the flow of funds for RE projects, using a bottom-up approach and the identification of the sequential decision-making procedure for the implementation of potential RE pilot projects (Section V).
- Discussion and agreement on the role that Zambia should play in order to become a distinct member of GVEP.

The workshop commenced with a presentation on the GVEP by the CORE Team. It was followed by presentations of completed work by each REWG sub-group, and it concluded with the draft Outline of GRZ's RE Policy Document (Section III) and the drafts for the Overall Action Plan for RE (Section IV).

Annex 2 provides a list of participants in the REWG meeting.

Annex 3 provides the initial agenda for the meeting of REWG.

### **I.3 Progress of Sub-Groups and Their Comments**

The first day of the workshop, three sub-working groups reported on their work and provided preliminary recommendations on rural electrification planning. (Note: The representatives of Sub-Working Group 2 – Financing and Private Sector – were not present during the workshop.)

Annex 4 provides the Zambia REWG Sub-working Group members.

Annex 5 provides the summary of reports on RE by the Sub-Working groups.

### **I.4 Drafting of RE Policy Outline and RE Action Plan**

A key outcome of the workshop, based on the report and comments from Sub-Group 1, was the agreement by the REWG of the need for a comprehensive rural electrification policy. In order to facilitate the preparatory process, the CORE Team agreed to develop an outline for this policy document. This outline was presented, and was revised based on discussions and feedback provided by the REWG during the second day of the workshop. Following the discussions, the REWG agreed to produce a draft rural electrification policy document for the

GRZ under guidance from the DOE. The revised outline of rural electrification policy for Zambia is presented in Section II of this report.

### **I.5 Initiation of In-country Consultations on the GVEP**

Facilitating the establishment of in-country consultations on the GVEP was an essential task of CORE during this mission. The CORE Team conducted in-country consultations on GVEP in four stages: (i) the CORE Team briefed, discussed, and agreed, in principle, with DOE officials on the GVEP and the role that Zambia would be expected to play in order to become an active member of the GVEP; (ii) the DOE presented the GVEP and its approach for Zambia in becoming an active GVEP member by institutionalizing in-country consultations among all RE stakeholders and inviting the REWG to support the DOE in taking the lead role in this effort; (iii) CORE facilitated discussions within REWG on policy, institutional, and coordination issues and on streamlining the coordination of efforts between GVEP and Zambia; and (iv) the next steps for making Zambia a member of the GVEP were identified. A detailed report of this last activity was submitted separately to USAID, by CORE International, Inc., in May 2003.

Annex 6 provides a presentation on the GVEP conducted by Mr. Oscar Kalumiana, with development support from CORE International, Inc.

### **I.6 Discussion of Issues Related to REA**

The GRZ has agreed, in principle, to establish a Rural Electrification Authority (REA). The results of the discussions, facilitated by CORE, are that the REWG understands and agrees that REA will focus primarily on implementing programs for RE grid-extension, mini-grids, and promoting renewable energy technologies (RET). Furthermore, the implementation of a bottom-up approach through decentralized RE planning and implementation at the village and district level, as well as capacity building among local stakeholders and consumers, will ensure RE sustainability. These functions, which include the financing of RE systems, will be required to be incorporated in the REA. The REA will be mandated to manage the construction of RE delivery systems based on least-cost principles, and the creation of RE business models which adapt to local conditions. The REA will build upon recent efforts in Zambia from other donor programs and NGOs.

Annex 7 introduces preliminary ideas and comments on the REA and the Rural Electrification Fund (REF) in Zambia.

### **I.7 Meetings with Zambian Officials and Donor Representatives**

The CORE team held several meetings with Zambian officials and donor representatives between May 19 – 23, 2003. These meetings are described in more detail below.

***Meeting with the Director of Department of Energy (DOE) at MEWD.*** On May 19, 2003 the CORE Team met with the Director of the Department of Energy (DOE) at MEWD, Mr. Wilfred Serenje, Mr. Kalumiana, Deputy Director, of the DOE, and Mr. Mulenga, an Economist at the DOE. CORE provided the DOE Director with a general presentation on the GVEP and the idea of Zambia working towards becoming a distinct member of the GVEP. The following day, May 20, CORE held a second meeting with Messrs. Kalumiana and Mulenga, in which CORE provided a more detailed presentation on the GVEP and the role Zambia could play. Following these two meetings, the DOE officials enthusiastically accepted the GVEP as the first item for discussion in the agenda of the REWG Workshop.

***Meeting with the Resident Representative of Swedish International Development Agency (SIDA) at the Swedish Embassy.*** On May 20, the CORE team met with Ms. Malin Liljert, a Program Officer in the Energy and Urban Sector Development Office at SIDA. The CORE Team briefed Ms. Liljert on the objective of their mission and discussed the support SIDA has planned to provide to the DOE in enhancing its RE management capacity. Ms. Liljert agreed with CORE on the need to maintain the REWG in the coming years, and incorporate it with the GVEP activities for Zambia. She also agreed, in principle, on the need to find a way to provide the REWG with compensation, possibly in the form of an honorarium. SIDA may very likely join USAID in resolving this issue.

***Meeting at the World Bank Country Office.*** On May 20, CORE experts met with Mr. Ernest Matonge, Information Analyst, at the World Bank Country Office. The meeting was focused on the need for establishing a Project Management Unit at DOE, and a discussion of its structure. CORE discussed the GVEP approach for Zambia and came to a consensus with Mr. Matonge about the issue.

***Meeting at USAID Mission.*** On May 22, 2003 CORE experts provided a briefing to USAID Mission representatives, including Mr. Dan Griffiths, Team Leader, Economic Growth (SO1) and Mr. Cris Mayunda, Economic Growth Deputy Team Leader. The briefing focused on CORE's activities during the mission. Zambia's role and participation in the GVEP was also discussed in detail. Furthermore, Mr. Mayunda offered to follow up by requesting a meeting with the Permanent Secretary at MEWD to discuss the DOE and GVEP-Working Group needs and opportunities to identify the potential assistance that USAID - Zambia could provide.

***Meeting with the Permanent Secretary at MEWD.*** On May 23, 2003 CORE's Team had a comprehensive meeting with Mr. Sichinga Austin, Permanent Secretary (PS) at the Ministry of Energy and Water Development in Zambia, and Mr. Oscar Kalumiana and Charles Mulenga from the DOE. The CORE team

briefed the Representatives on: (i) the work performed during the week, (ii) the recommendation to maintain the REWG for the next 2 years, and to help with the preparations of the upcoming World Bank loan for the Increased Access to Energy Services (IAES) project for Zambia, (iii) CORE's views on the restructuring of the existing Rural Electrification Fund, and (iv) Zambia's important role in GVEP and the next steps it should take.

Following the meeting with Mr. Sichinga, the CORE Team concluded that the MEWD has a keen understanding of the nexus between rural electrification and rural development. The meeting was exceptional and the CORE Team left very encouraged that Zambia is serious about both rural electrification and the GVEP. During the meeting, the Permanent Secretary indicated key actions and stated several times that USAID and CORE should judge the MEWD by our actions that will be completed before your next visit Zambia.

The following is a summary of the meeting:

1. On the issue of CORE's work on assisting the Working Group with a blueprint for a Rural Electrification Action Plan, the Permanent Secretary commented that he was extremely thankful to USAID for CORE's services. He had received much positive feedback on CORE's work from both Ministry officials and members of the Working Group.
2. With respect to the need for sustaining the REWG, the Permanent Secretary fully agreed. He noted that as ZESCO moves toward some form of commercialization, there will be a void in the matters of rural electrification, as it would probably take at least a year or more before a REA is established and is operational. The REWG could fill the void in the interim. Also, the REWG could be very helpful in assisting the DOE in preparatory aspects of the \$120 million World Bank loan for the IAES project. The key to the sustainability of the REWG is to find a way to provide it some form of compensation, possibly in the form of an honorarium. This compensation is not a significant cost, and he plans to discuss this possibility with both SIDA and USAID. We estimate that \$50,000 will keep most of the key members of the REWG engaged for about 12-18 months. An added advantage of maintaining the REWG is that it can begin acting as a GVEP Working Group and initiate the process of enlarging the group to include donor representatives, industry, investors, etc. This Group could also take on the responsibility for GVEP consultations and the preparation of the GVEP Action Plan.
3. With respect to the Rural Electrification Fund (REF), the Permanent Secretary shares the same judgment with CORE that the REF lacks credibility and donors will not be willing to support it. The GRZ has been breaking its own rule by allotting the 3% levy from ZESCO into this Fund. Also, the management of the Fund will need to be more transparent. The overall structure and the Board of Directors of the Fund need to be changed. The Permanent Secretary

acknowledged the flaws in the Fund and responded very positively. He assured the CORE Team that he intends to talk to the Minister of Energy and Water Development (MEWD) and the Minister of Finance to help restructure the Fund. He plans to accomplish this within the next several months.

4. With regards to the GVEP, the Permanent Secretary was very excited about the prospects for the inclusion of Zambian RE stakeholders. He promised the following actions:

- Discuss with the Minister the possibility of him to issue an order appointing the DOE as the focal point for all GVEP coordination. The DOE would be asked to enlarge the existing REWG and formalize the GVEP Working Group (GVEP-WG).
- Make a press announcement on Zambia's participation in GVEP. The MEWD will also issue a press release to this effect.
- Ask the DOE to pursue the May 2003 initiated in-country consultation process supported by GVEP-WG and develop a draft GVEP Action Plan to be discussed and agreed later on with the GVEP Secretariat.

The Permanent Secretary also indicated that he and his Minister would call the U.S. Ambassador to Zambia to thank him for USAID support and make a plea for him to enhance USAID partnership with Zambia, especially in the area of rural electrification.

Annex 8 lists the Zambian officials and donor representatives met during the trip.

### **I.8 Recommendations for Follow-Up Activities**

Based on CORE's work in the field and meetings with the Zambian authorities, CORE believes that USAID, under the EETP, is playing a key supporting role in the preparatory process for an enhanced RE program in Zambia. Moreover, there exists a serious commitment by the Zambian authorities at MEWD toward RE. It would be very helpful to sustain this momentum and further build upon it by continuing to support Zambia in the process of rural electrification. The USAID Mission to Zambia can play a critical role in doing this.

It is CORE's recommendation that future assistance from USAID be focused on establishing and building sustainable RE institutions at the provincial and national levels in Zambia. This will assist in creating the environment for implementing extensive projects such as the RE program proposed by the World Bank, with a total funding package of \$120 million.

CORE International's work in Zambia drew praise from Ministry Officials in Zambia, USAID Representatives, and REWG staff. On USAID's support of

CORE's work in Zambia, Dr. Griffin Thompson of the EGAT Bureau in USAID wrote, "USAID is extremely confident of the work Mr. Shrivastava is doing and given the comments we've heard from a number of different individuals he is being well received." In response to working directly with the CORE Team in Zambia, Mr. Oscar Kaluminana, Deputy Director of the Department of Energy in the Zambian Ministry of Energy and Water Development wrote, "I wish to inform you that we had a wonderful time with Vinod [Shrivastava] and Vaso [Leno]. We found their input most rewarding and the Rural Electrification Working Group Members are very happy....With regard to GVEP, we have formed (on advice from Vinod and Vaso), a National [GVEP] Secretariat at the Department of Energy and will early next week issue a press statement inviting national stakeholders to declare their interest in GVEP activities with the secretariat."

Annex 9 provides the full context of these comments.

One of CORE's accomplishments while in Zambia was the facilitation of initial discussions on a "Rural Electrification Policy in Zambia" (the outline of which was produced by CORE and is discussed in Section II), a document that is proposed to be prepared by the REWG by the end of 2003. The purpose of this policy document is to provide a guideline for the successful implementation of a full-scale RE development program. The points of this outline are presented in the following section.

## **II. OUTLINE OF RURAL ELECTRIFICATION POLICY IN ZAMBIA - THE ROAD FORWARD**

The implementation of a full-scale RE development plan can be a very difficult process. As the DOE and REWG in Zambia came to this realization, they expressed their desire for a policy document on rural electrification and considered this a priority action. The CORE International Team assisted in fulfilling this need, and facilitated discussions among the REWG members on how to produce such a document that would provide a proper and sustainable structure on RE development for the GRZ and its entities to follow. The result was the creation of the following draft outline for the GRZ Rural Electrification Policy.

This draft outline includes the presentation of the current status of rural electrification in Zambia, problems that need to be addressed, objectives for securing a viable and sustainable rural electrification structure for the Zambian country, and detailed steps on meeting these objectives. Some of these steps include addressing the need for policy reform in the financial market sector in RE, facilitating the improvement of quality and regulation standards in energy distribution, and institutional framework reforms as it relates to management and funding.

This document is an important piece in the Zambian RE development process, and its implementation is vital.

**Draft**

**RURAL ELECTRIFICATION POLICY**

**The Road Forward**

**GOVERNMENT OF THE  
REPUBLIC OF ZAMBIA**

**Prepared by:**

**Rural Electrification Working Group (REWG)  
ZAMBIA**

**Facilitated by:**

**CORE International, Inc.  
Washington D.C.**

**Lusaka, May 2003**

## **Rural Electrification Policy in Zambia – The Road Forward**

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**III. OVERALL ACTION PLAN FOR RURAL ELECTRIFICATION IN ZAMBIA,  
JUNE 2003 - JUNE 2005  
(IMMEDIATE AND MID-TERM MILESTONES AND ACTIONS)**

This section presents a draft of the Overall Action Plan for Rural Electrification in Zambia, which was developed, in large part, with the REWG during the workshop. It is designed to list all major immediate and mid-term milestones and actions for RE in Zambia. It focuses on the preparatory work that needs to be performed in order to arrange the institutional and regulatory environment for the up-coming World Bank Project – Increased Access to Energy Services (IAES). More specifically, it includes (i) areas of intervention, (ii) objectives to be achieved, policies to be adopted, and strategies to be developed, (iii) priority actions to be undertaken, (iv) responsible institution(s), and (v) expected start/completion dates for each itemized activity.

The REWG agreed on the following grouping scheme for the various interventions:

1. Policy and Institutional Reform
2. RE Regulatory Framework
3. RE Financing
4. Testing of RE Business Models

It is prudent that the REWG review the present draft Overall Action Plan for Rural Electrification in Zambia before deciding to share its final draft with potential donors in the RE process, including the World Bank and USAID.

The draft Overall Action Plan for Rural Electrification in Zambia is designed for monitoring purposes as well. Once the GRZ approves the Action Plan, the DOE and the REWG should begin coordinating its implementation, utilizing it as the basis for monitoring the RE process. Furthermore, the Action Plan will need to be revised periodically.

**Overall Action Plan for Rural Electrification in Zambia  
June 2003 - June 2005**  
(Immediate and Mid-Term Milestones and Actions)

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
I	I. Policy and Institutional Reform	I.A. RE Policy Document	Prepare the Draft of GRZ RE Policy <sup>1</sup>	REWG/DOE	Approve by GRZ by end of 2003
I.A					
I.B		I.B. RE Institutional Setup	Design and Finalize the Overall Structure for RE Institutional Arrangements	DOE	
		Establishment of PMU at DOE	<ul style="list-style-type: none"> <li>Set up a PMU as interim structure to coordinate the establishment of REA and all preparatory steps for the IAES program</li> </ul>	MEWD	By August 31, 2003
		Legislation for REA	<ul style="list-style-type: none"> <li>Propose REA legislation for approval by the Parliament</li> </ul>	GRZ/Parliament	By June 2004
		Establishment of REA	<ul style="list-style-type: none"> <li>Design, incorporate, staff, and make REA operational</li> </ul>	GRZ/PMU	Complete by September 2004
			<ul style="list-style-type: none"> <li>Design and implement specific actions to decentralize RE planning and implementation at district level</li> </ul>	REA / MLG / MFNP / REWG	By end of 2004

<sup>1</sup> See Section II of the Trip Report: "Outline of Rural Electrification Policy in Zambia – The Road Forward"

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
		Support to Private Sector	<ul style="list-style-type: none"> <li>• Prepare a plan for encouraging the participation of private providers including ESCOs, NGOs, etc</li> </ul>	REWG/DOE	Complete by end of 2004
		Local Finance	<ul style="list-style-type: none"> <li>• Design policies and develop plans to encourage local financial institutions to participate in RE financing</li> </ul>	DOE / MFNP / Bankers Assoc.	By July 2004
<b>I.C</b>		<b>I.C. RE Strategy and Master Plan</b>	Prepare GRZ Master Plan and Strategy for RE	PMU / DOE / REWG	Complete by March 2005
		Develop RE Strategy and Master Plan	<ul style="list-style-type: none"> <li>• Assess local energy resources including renewables</li> <li>• Forecast demand and load</li> <li>• Identify RE supply institutions and mechanisms</li> <li>• Perform technology assessment and selection</li> <li>• Assemble and package geological hydrology, and regulatory information, pre-license, and water and property use rights for potential private small IPPs</li> <li>• Design policy for tariffs and prices</li> <li>• Assess consumer willingness and affordability to pay</li> </ul>	PMU / DOE / REWG	Complete by March 2005

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
			<ul style="list-style-type: none"> <li>• Assess the possibility of sweat equity contribution from consumers</li> <li>• Perform Economic Analysis and Assessment of Investment needs</li> <li>• Design policy for funding and coordination</li> <li>• Design approach for monitoring and evaluation</li> <li>• Prepare an action plan for strategy implementation</li> </ul>		
I.D		<b>I.D. Institutional Capacity Building Program</b>	Prepare a Capacity Building Program	PMU / DOE / REWG	
		Capacity Building Program	<ul style="list-style-type: none"> <li>• Design a capacity building program</li> </ul>	PMU / DOE / REWG	Complete by end of 2003
		Centralized training institution	<ul style="list-style-type: none"> <li>• Establish a central (with branches in selected districts) training institution and build capacity within it.</li> </ul>	PMU / DOE / REWG	Start by June 2004
I.E		<b>I.E. Public Awareness and Outreach Program</b>	Prepare a Public Awareness Program	PMU / DOE / REWG	Complete by mid 2004
			<ul style="list-style-type: none"> <li>• Consider NGO and Media involvement in public awareness</li> </ul>	PMU / DOE / REWG	Start by Mid 2004

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
			and outreach • Use academic institutions		
	<b>II. RE Regulatory Framework</b>				
<b>II.A</b>		<b>II.A. RE Regulatory Process</b>	Adopt Policy and Procedures for RE Regulatory Process	ERB	Complete by end of 2004
		Develop Regulations	<ul style="list-style-type: none"> <li>Develop and approve concession, franchise, REC, and ESCO business regulation</li> </ul>	ERB	Complete by end of 2004
		Licensing Procedures	<ul style="list-style-type: none"> <li>Develop licensing guidelines, design and approve licensing procedures</li> </ul>	ERB	Complete by end of 2004
		Develop Regulatory Process Procedures	<ul style="list-style-type: none"> <li>RE public hearing and rule making practice and procedure</li> </ul>	ERB	Complete by end of 2004
<b>II.B</b>		<b>II.B. RE Tariffs and Subsidies</b>	Prepare and Adopt RE Tariffs, Prices, and Subsidy Guidelines and Procedures	ERB	Complete by end of 2004
		Cost of Service Study	<ul style="list-style-type: none"> <li>Commission a RE cost-of-service study</li> </ul>	ERB	Complete by end of 2004
		Tariff structure and Prices	<ul style="list-style-type: none"> <li>Design a multiple tariff structure which fits RE consumer groups</li> <li>Design and use price control measures when competition is absent</li> </ul>	ERB	Complete by end of 2004

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
		Competing for Subsidies	<ul style="list-style-type: none"> <li>Prepare rules and procedures for subsidy competition</li> </ul>	ERB	Complete by end of 2004
		Rules and Procedures for Subsidization	<ul style="list-style-type: none"> <li>Design procedures for subsidy calculation and mechanisms for subsidy deployment to service providers or consumers</li> </ul>	ERB	Complete by end of 2004
<b>II.C</b>		<b>II.C. RE Technical Standards (TS)</b>	Prepare and Adopt Technical, Safety, and Customer Care Standards for RE	ERB	Complete by end of 2004
		Technical Standards	<ul style="list-style-type: none"> <li>Prepare and adopt technical standards for RE projects</li> </ul>	ERB	Complete by end of 2004
		Performance Standards	<ul style="list-style-type: none"> <li>Design performance standards for RE</li> </ul>	ERB	Complete by end of 2004
		Safety Standards	<ul style="list-style-type: none"> <li>Establish safety and security standards for equipment</li> </ul>	ERB	Complete by end of 2004
		Customer Care Standards	<ul style="list-style-type: none"> <li>Customer care standards</li> </ul>	ERB	Complete by end of 2004
		Terms and Conditions for Supplying Electricity	<ul style="list-style-type: none"> <li>Terms and conditions for the supply of electricity to rural consumers</li> </ul>	ERB	Complete by end of 2004
<b>II.D</b>		<b>II.D. RE Monitoring and Oversight</b>	Prepare and Adopt RE Monitoring and Oversight Policy and Procedures	ERB	Complete by end of 2004
		RE Monitoring and Oversight Policy	<ul style="list-style-type: none"> <li>Develop RE monitoring policy involving close cooperation with local communities and their</li> </ul>	ERB	Complete by end of 2004

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date		
			representatives <ul style="list-style-type: none"> <li>○ Periodic meetings/hearings</li> <li>○ Conduct periodic site visits and inspections</li> <li>○ Conduct consumer surveys</li> </ul>				
	<b>III. RE Financing</b>						
<b>III.A</b>	<b>III.A. GRZ's Fund Raising Strategy</b>		Develop a Fund Raising Strategy Agreed by Major Donors	DOE / MFNP / REA	By end of 2004		
	Integrate REF into REA and Capitalize it		Integrate REF into REA and operationalize it	GRZ / REA	Complete before REA becomes operational		
			Arrange mechanisms for capitalizing the NREF including levies, direct government budget support, donors support, etc.	GRZ / REA	By June 2004		
	Organizational design and preparation policies and procedures for REA and REF		<ul style="list-style-type: none"> <li>• Reorganize the REF administration and management</li> <li>• Design and approval of new policies and procedures of funding and disburse use of the REF</li> <li>• Develop project preparation standards and selection criteria</li> </ul>			REA Board	September 30, 2004
			Prepare the Zambia - GVEP Action Plan		Develop and agree on GVEP - Zambia Action Plan, through in-country consultations among the	DOE/GVEP-WG	By August 2003

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
			GVEP-WG, mobilizing downstream funding for technical assistance and capacity building for RE		
<b>III.B</b>		<b>III.B. Donor Participation and Coordination</b>	Assess Potential Donor Contributions for RE and Coordination Issues	MFNP/REA	
		Identify Donor Support	<ul style="list-style-type: none"> <li>Organize and mobilize donor contributions to the REF through various mechanisms</li> </ul>	MFNP/REA	Start by July 2004
		Enhance Donor Coordination	<ul style="list-style-type: none"> <li>Enhance donor participation and coordination function</li> </ul>	MFNP/REA	Start by end of 2003
		Work with Bilateral and Multilateral Donors	<ul style="list-style-type: none"> <li>Engage the multilateral and bilateral donors in the process of establishing REA from the beginning</li> </ul>	DOE/REWG	Start by August 2003
<b>III.C</b>		<b>III.C. Private Sector Participation</b>	Study on the Identification of Appropriate Ways and Mechanisms for Attracting Local and Foreign Investors in RE	REWG/DOE	Complete by end of 2004
		Commission a Study on Alleviating Barriers to Private Sector Participation in RE	<ul style="list-style-type: none"> <li>The study underway will identify barriers and provide recommendations for action in facilitating an attractive environment for private sector participation in RE and utilization of renewables.</li> </ul>	REWG / DOE / MFNP	Complete by end of 2004

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
		Involve Local Banks as Co-investors	<ul style="list-style-type: none"> <li>Conduct a survey on identifying action for facilitating involvement of local banks in RE financing</li> </ul>		
		Design an Attractive Fiscal Policy to Address Barriers to Private Sector Participation in RE	<ul style="list-style-type: none"> <li>Based on the results of the study on barriers to private sector participation, design appropriate fiscal and financial incentives to address barriers to private sector participation in RE</li> </ul>	DOE/MFNP	Complete by June 2005
III.D		<b>III.D Upfront Consumer Contribution</b>	Design of Subsidy Levels and Deployment Schemes	REA/ERB	
		Connection Fees for RE	<ul style="list-style-type: none"> <li>Based on the results of the study on affordability of the consumers to pay, design subsidization schemes, levels, and deployment mechanisms and channels</li> </ul>	DOE/MFNP/ERB	Complete by end of 2004
	<b>IV. Testing of RE Business Models</b>				
IV.A		<b>IV.A Preparatory Activities for RE Pilot Projects</b>	Agree with the WB and UNIDO and Select Pilot Sites to Test Various Business Models	REWG / PMU / WB	By end of 2003
		Survey Pilot Areas	<ul style="list-style-type: none"> <li>Involve NGOs in visiting and surveying consumers in the pilot</li> </ul>	PMU/REWG	By March 2004

No.	Area	Objectives, Policy, Strategy	Priority Action	Responsible Institution	Expected Start/Completion Date
		Training and Capacity Building Programs	project areas on their willingness and affordability to pay		
			<ul style="list-style-type: none"> <li>• Consumer education and training in pilot projects sites</li> <li>• Capacity building for business and institutional models</li> </ul>	PMU/REWG	Start by June 2004
		Other Decisions	<ul style="list-style-type: none"> <li>• Discuss and propose approaches for ownership structure for pilot projects</li> <li>• Discuss and propose the scheme of project financing</li> </ul>	DOE	Complete by June 2004
		Designing and Development of Village Pilot Micro Credit Schemes	<ul style="list-style-type: none"> <li>• PMU, supported by WB project preparation facility and GEF, facilitates the setting up of rural credit schemes for rural energy projects</li> </ul>	PMU	By end of 2004
<b>IV.B</b>		<b>IV.B Pilot projects Preparation and Implementation</b>	Prepare a Comprehensive Cost Assessment for the Identified Projects	PMU	Complete by June 2004
		Design and Implementation of the Selected Pilot Projects	<ul style="list-style-type: none"> <li>• Conduct project design and costing including technical design, institutional model, and financing arrangements</li> </ul>	PMU	Complete by September 2004
			Individual project implementation	PMU	Complete by June 2005

**Note:** REWG should be integral in the responsibilities of DOE under this Action Plan

**Acronyms:**

GRZ -- Government of the Republic of Zambia

MFNP -- Ministry of Finance and National Planning

PMU -- Interim structure within DOE/MEWD responsible for the coordination of the process for the establishment of REA

REA -- Rural Electrification Agency

MEWD -- Ministry of Energy and Water Development

IAES -- Increased Access to Energy Services (The proposed WB project)

WB -- World Bank

ERB -- Energy Regulation Board

REF -- Rural Electrification Fund

REMP -- Rural Electrification Master Plan

MLG -- Ministry of Local Governments

REWG -- Rural Electrification Working Group

RECs -- Rural Electric Cooperatives

ESCOs -- Energy Service Companies

GVEP-WG -- Global Village Energy Partnership Working Group

TORs -- Term of References

RE -- Rural Electrification

## **IV. RURAL ELECTRIFICATION AUTHORITY (REA) - A CONCEPT PAPER**

In order to facilitate the ongoing process of RE development planning, the GRZ was advised to create an entity that would have the responsibility of technical implementation and RE development. The establishment of this entity, called the Rural Electrification Authority (REA), was agreed upon in principle by the Zambian authorities. The primary objectives of REAs in other countries are to implement programs for RE grid-extension, mini-grids, and promote renewable energy technologies (RET). Conducting a bottom-up approach for RE development through decentralized RE planning and implementation at the village and district level, as well as capacity building among local stakeholders and consumers, will ensure its sustainability. The REA will also be required to incorporate the financing of RE systems, including investment and private sector participation. The REA will distribute RE based on least-cost principles and RE business models adapted to local conditions. Finally, the REA will build upon recent efforts in Zambia from other donor programs and NGOs.

The concept paper included in this section provides a description of the overall makeup and objective of the Rural Electrification Authority.

### **IV.1 REA Mission, Vision, and Objectives**

#### ***Mission***

To facilitate the availability of electricity for poverty reduction and economic growth, in rural and semi-urban areas, by leading the objective of electrifying 35% of Zambia by the year 2010.

#### ***Vision***

To act as a client-friendly and development-oriented organization for financing and promoting projects covering power generation, conservation, and distribution networks with a focus on the rural and semi-urban areas of Zambia.

In implementing this vision, the REA should focus on the following:

- Promotion of productive uses of energy to increase income-generating activities in rural areas.
- Promotion of renewable energy resources and technologies where grid electrification is inappropriate and uneconomical in order to increase the pace of electricity access.

- Regular monitoring and evaluation of the socio-economic impact of rural electrification in order to enhance the impact and continuously improve the rural electrification process.

### ***Objectives***

In furthering its Mission, REA's main objectives will be as follows:

- To promote and finance grid-extension RE projects aimed at integrated system building and improvement.
- To promote decentralized and non-conventional energy sources, energy conservation, and power distribution with a focus on the electrification of rural income generation activities, rural households, and agriculture sector development and farming.
- To finance decentralized power generation projects, use of new and renewable energy sources, consultancy services, sub-transmission and distribution systems, etc. for providing reliable supply of power to rural areas.
- To mobilize funds from different sources, including the raising of funds from domestic and international agencies and making loans to Rural Electric Cooperatives (RECs), Non-Government Organizations (NGOs), ESCOs, and other private electricity providers.
- To maximize the rate of economic and financial impact on its operations by operating along commercial lines, while fulfilling its goals of building power infrastructure, rapid socio-economic development of rural areas, and technology innovation and upgrading.
- To ensure client satisfaction and safeguard customers' interests through mutual trust and self-respect within the organization as well as with business partners by ensuring continuous improvement in operations and providing the requisite services.
- To assist the rural communities and other grantee and donor organizations by providing technical guidance, consultancy services and training facilities for institutional setups, formulation of economically and financially viable schemes and proposals, and facilitating the achievement of planned targets envisaged under GRZ Rural Electrification Program.

### **IV.2 Establishment, Management, and Ownership**

The creation of an REA that will function as an autonomous agency requires specific enabling legislation. A Rural Electrification Act would affirm the country's

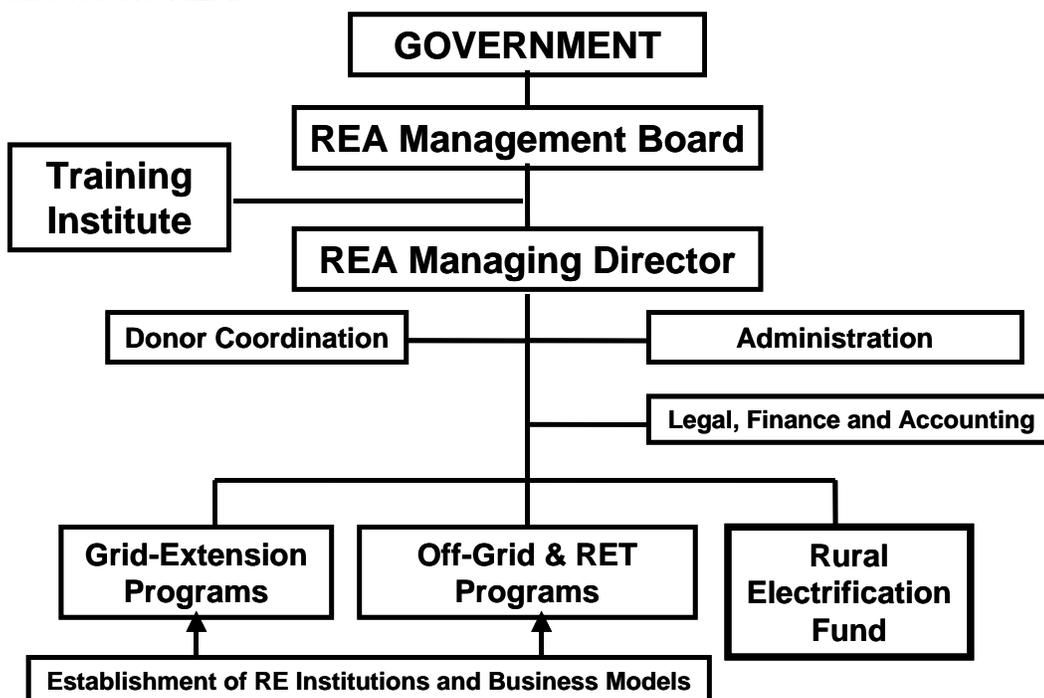
commitment to rural electrification, as well as define the entity charged with achieving it.

**On REA Incorporation**

- REA will be incorporated as an independent public entity.
- REA will open project offices in the districts.
- REA will establish one training institute and utilize the Zambia Institute for Rural Electrification as its subsidiary.
- Salaries of the REA employees will be highly competitive and employees will be given generous benefits.

**Management**

Management of REA would be the responsibility of the REA Management Board. This Board would consist of senior representatives from the broad stakeholder community including central and local governments, consumer organizations, and the REA Managing Director. The Executive Directors of each of the three REA Departments may have seats on the Board as non-voting members. Preferably, the Chairman of the Board should be the Minister of Finance or the Minister of Energy and Water Resources. The following diagram represents a possible structure for the REA.



The main REA administrative and financial control units are to be located directly under the Managing Director. There would also be a unit for Donor Coordination and for reporting to the Managing Director. This unit would be the focal point for the coordination of the rural electrification donor-financing component for REA. It would also be responsible for coordinating pilot activities with other Zambia rural electrification projects outside of direct REA responsibility, namely individual donor-financed projects under implementation.

### ***Ownership***

REA will be wholly owned by the Government of Zambia and will operate as a public enterprise. Its main objective will be to finance and promote rural electrification projects across the country. It will provide financial assistance to Rural Electric Cooperatives, rural communities and NGOs, and private developers for rural electrification projects.

REA will administer the REF and provide loan assistance to all eligible institutions/organizations for investments in rural electrification schemes through its Central Office, located in Lusaka, and the various field units (Project Offices), which will be located in most of the districts.

The Project Offices in the districts will coordinate the programs of REA's financing with the concerned eligible institutions/organizations. Project Offices will also facilitate the formulation of schemes, issuing of grants and loans, and disbursements and implementation of RE schemes by the concerned entities.

### **IV.3 Responsibilities and Functions**

Typically an agency such as the proposed REA:

- Recommends short-term and long-term policies to GRZ on matters relating to electricity supply.
- Formulates detailed plans and programs for RE, based on the approved Rural Electrification Master Plan.
- Manages RE program implementation.
- Supports the establishment of various types of RE institutions, which fit with local conditions and loads.
- Prescribes By-Laws for the RECs and determines the manner of their functioning.
- Organizes rural electric co-operatives (RECs) for the purpose of executing and managing the RE program.

- Arranges funds and processes loans to REC's and other private service providers.
- Monitors RECs operation and management activities.
- Liaises with ZESCO and the ERB, the Regulator.
- Takes-over, as needed, semi-urban distribution systems from ZESCO and manages the transition process to rural consumers ownership.
- Provides funds for TA and facilitates the RE project preparatory process.
- Finances generation, sub-transmission and distribution systems and other related activity projects.
- Focuses on the development of electricity generation and distribution projects for rural industries and agricultural development as well as for households on the basis of techno-economic viability of power generation and service for the rural population.
- Works with the Regulator on application of electricity tariffs and other charges relating to electricity and energy supply services for rural areas.
- Makes arrangements for the development of skilled human resources in the areas of electricity generation and distribution and consumer energy use through advanced-level training and education programs.
- Provides technical guidance and consultancy in matters related to electricity and alternative forms of power generation in rural areas.
- Performs other functions in order to accomplish the objectives of its mandate.
- Receives grants and borrows from national agencies, banks or individuals.
- Receives, through the GRZ, grants and borrows from foreign governments or international agencies.
- Administers and uses the Rural Electrification Fund (REF) to finance RE projects.
- Administers its approved operational budget.
- Supervises, monitors and evaluates the RE implementation program.

- Builds and maintains a comprehensive public awareness program to enhance the effectiveness of the GRZ RE program.
- Performs all required functions in order to fulfill its duties and responsibilities.

#### **IV.4 Standardization**

Rural Electrification programs are very capital intensive because of the nature of the equipment and the need for a widespread and scattered network leading to difficulty in maintenance. Moreover, lengthy lines, and isolated scattered loads lead to high distribution losses. Since there is a need to heavily subsidize the capital investments, the RE program is generally financially unviable. Furthermore, since there is a situation of scarce resources on the one hand, and a commitment to bring electricity to the most possible villages on the other, the only way to achieve RE objectives is to devise ways and means of bringing out cost-effective systems for rural electrification.

REA will work to ensure the active association of the ZESCO, manufacturers and research institutes, and the Regulator in bringing about standards and specifications for major RE construction materials including conductors, transformers, insulators, circuit-breakers, energy meters etc., as well as evolving basic construction practices which will ensure cost reductions for RE projects.

#### **IV.5 Capacity Building and Training**

REA, through its Training Center in Lusaka, will also conduct various training programs/courses for RE project designers and developers, rural communities, NGOs, RECs, etc.

##### ***Training Objectives***

- To design and conduct training programs in electricity generation and distribution, encouraging the adoption of innovative and cost-effective modern technologies.
- To organize training programs in both conventional and non-conventional energy areas, and to conduct programs related to the development of techno-managerial efficiency of power utilities/Industry.
- To organize tailor-made programs suitable to the needs of RECs, ESCOs, energy NGOs, and other power utilities/private power companies.

### ***Training for Whom***

- Personnel from distribution companies and private developers involved in the formulation and implementation of RE projects and O&M officers of the power supply systems, ranging from junior level to Senior Executives.
- Personnel of various cadres from Rural Electric Cooperatives.
- Officers of other development agencies associated with rural energy programs.
- Officers of National Level Corporations, Power Utilities and Industry, and Independent Power Producers.
- REA officers and staff, etc.

### ***Potential Training Programs***

- Technical issues and matters
- Management
- Non-conventional sources of energy
- Finance and accounting
- Energy conservation
- Information technology
- Billing and collections
- Consumer relations

## **V. FLOW OF FUNDS AND DECISION MAKING PROCESS FOR IMPLEMENTATION OF RE PILOT PROJECTS IN ZAMBIA**

Implementation of a full-scale RE development plan is an extensive process. Despite the effectiveness of policy documents and action plans, it is necessary to test the feasibility of project implementation through the use of pilot projects. Accordingly, the REWG agreed in principle on the need for implementing a number of RE pilot projects for testing the viability and sustainability of various RE institutional and business models. These projects will be vital in addressing not only the future of RE development in Zambia, but more specifically:

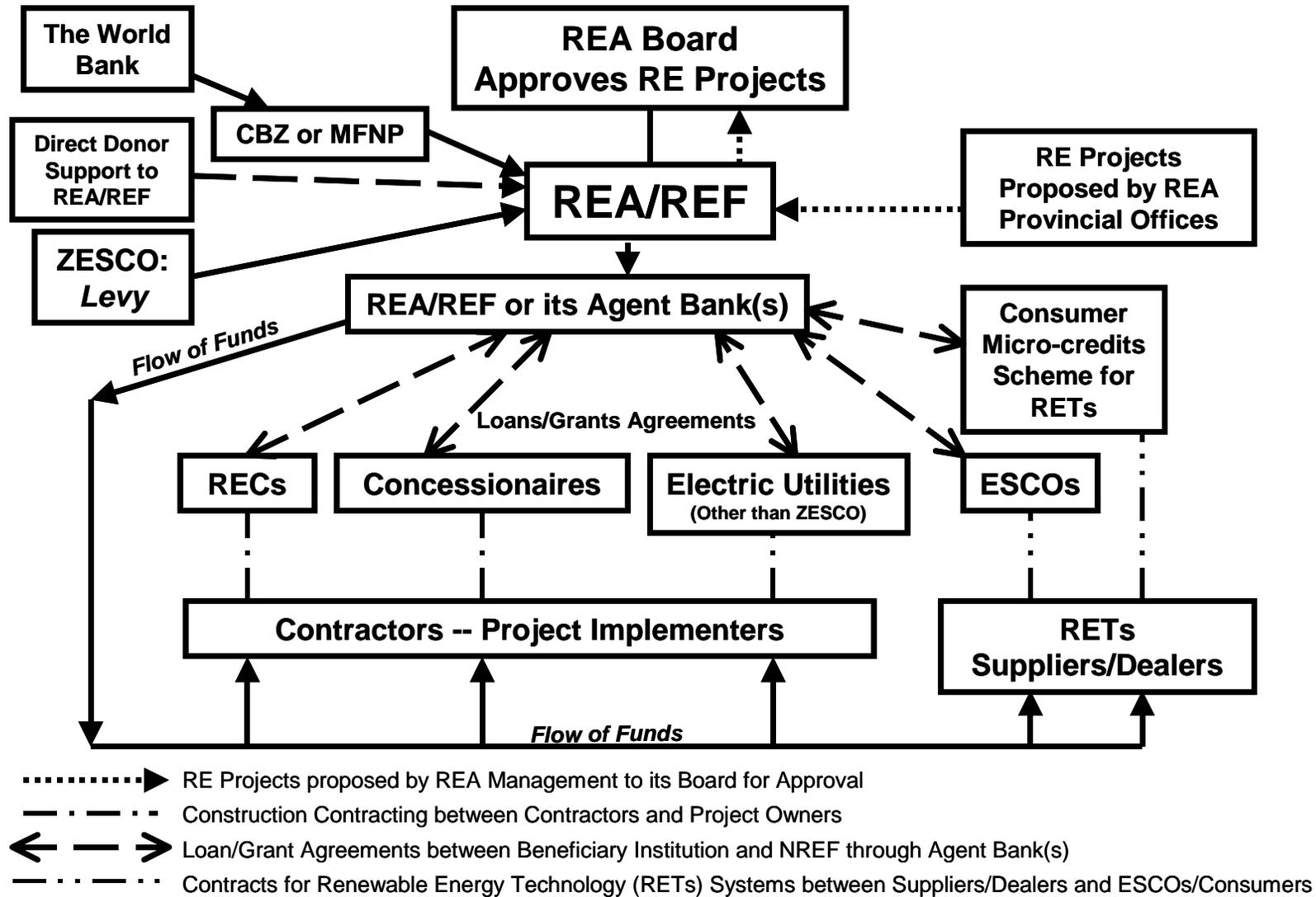
- An acceptable plan for the flow of funds in order for donors to participate with substantial financing in Zambia's RE program.
- The need for a transparent decision making process.

Addressing these points, the CORE Team developed several outlines and slides to present its views on RE development planning. Following many discussions during the final portion of the workshop, the REWG arrived at a consensus with the following graphical presentations for answering both of the above questions.

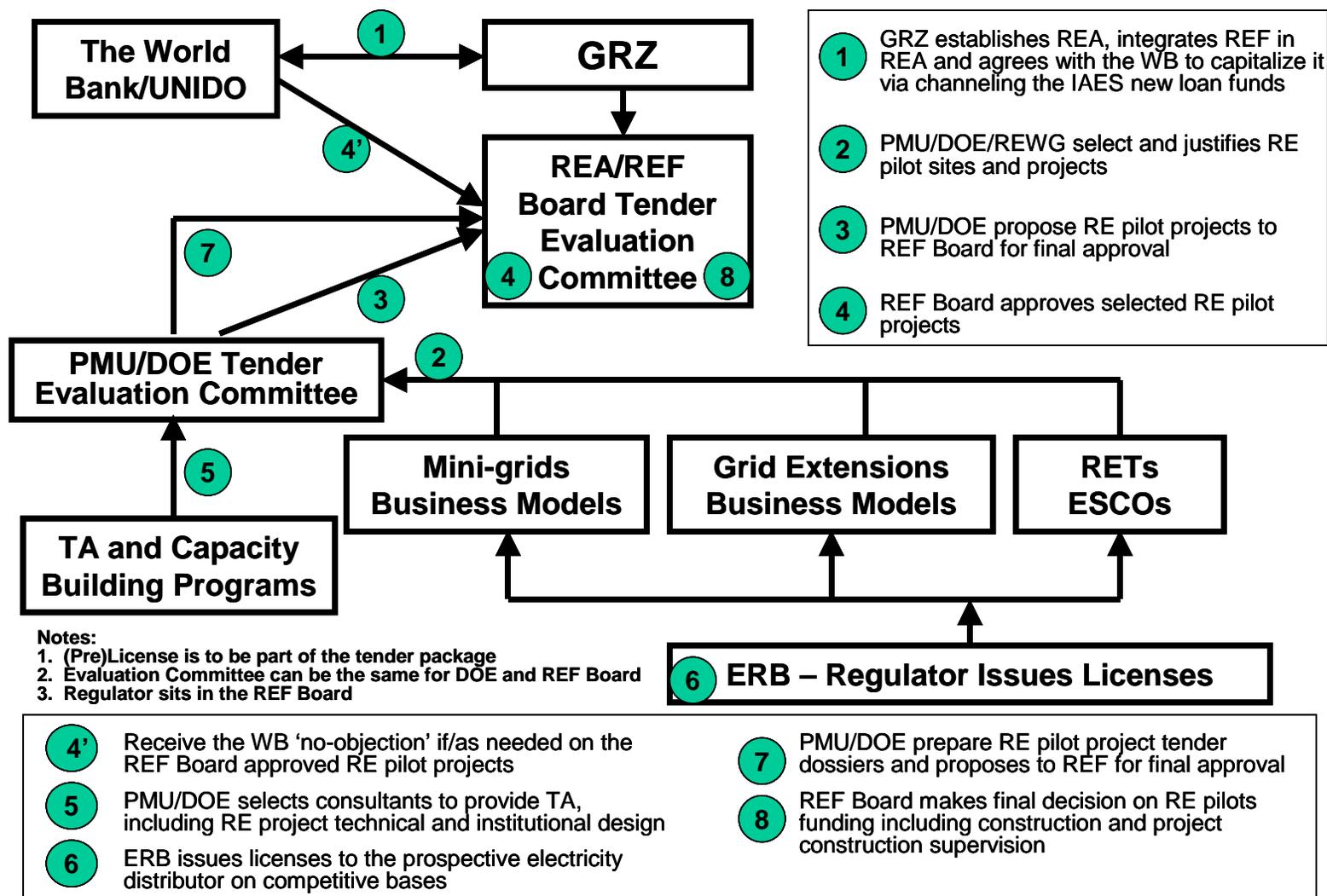
Note: Please note that in the following chart:

- CBZ stands for Central Bank of Zambia,
- MFDP stands for Ministry of Finance and National Planning, and
- UNIDO stands for the United Nations Industrial Development Organization.

## Flow of Funds for Rural Electrification in Zambia



## RE Decision Making Process in Sequential Steps Implementation of RE Pilot Projects



**ANNEX 1: AGENDA FOR THE MISSION TO ZAMBIA, MAY 19-23, 2003**

**AGENDA FOR THE MISSION**

**BLUE PRINT FOR RURAL ELECTRIFICATION ISSUES AND NEEDS IN ZAMBIA AND PARTICIPATION IN GVEP**

**May 19 - 23, 2003**

**CORE INTERNATIONAL, INC., WASHINGTON, D.C.**

**I. MISSION MEMBERS FROM CORE International, Inc.**

1. Vinod K. Shrivastava, Senior Energy Expert
2. Dr. Vaso Leno, Senior Energy Expert

**II. MISSION AGENDA AND OBJECTIVES**

**1. Rural Electrification Blue Print - Follow Up**

- Initial Briefing to the American Embassy official in Lusaka.
- Initial discussion with DOE on policy issues and approaches related to rural electrification (RE).
- Meeting with RE stakeholders including representatives from Ministry of Finance, Ministry of Local Governments, other line ministries, as well as representatives of the World Bank, SIDA, and other major potential donors in supporting GRZ RE program.
- Discussions with the Working Group on RE (WGRE) and its sub-groups. Development of a revised schedule with WGRE for target deliverables by the sub-groups.
- Develop guidelines for designing the Rural Electrification Authority.
- Advise sub-groups on developing their respective activity programs for gathering information, conducting analysis, and preparing deliverables.
- Preparation of a Draft of a detailed blueprint outline.

**2. GVEP -- Facilitating the establishment of the GVEP in-country consultation:**

- Work with DOE on facilitating a meeting of major RE stakeholders, provide a presentation of GVEP and facilitate discussions to build awareness on the need for establishing a country forum of consultation on GVEP and related issues.
- Work with the DOE on identifying the potential GVEP members from Zambia, and have them apply for membership in GVEP.
- Discuss the idea of creating a GVEP Zambia forum under DOE's coordination. In case DOE takes over this responsibility, it will have to designate a GVEP Zambia Coordinator.
- Discuss the need for developing a GVEP – Zambia plan of activities and schedule and have Zambians agree to develop and coordinate it with GVEP Secretariat.

**ANNEX 2: LIST OF PARTICIPANTS IN THE REWG  
WORKSHOP ON May 19–23, 2003**

**(Chrismar Hotel – Lusaka)**

1. Mr. Oscar Kalumiana, Deputy Director, Department of Energy, Ministry of Energy and Water Development
2. Mr. Charles Molenga, Economist, Department of Energy, Ministry of Energy and Water Development
- 3.
4. Mr. Clement Sasa, Office for Promotion of Private Power Investment
5. Prof. J. M. Mwenechanya, Mclink Consulting Services
6. Ms. Sozyo Ndovi, Zambia Consumer Association
7. Mr. D. M. Mauzu, Private Consultant
8. Mr. Joseph Kapika, Energy Regulatory Board
9. Mr. Geoffery Musonda, Department of Energy, Ministry of Energy and Water Development
10. Mr. Augustine Musumali, ZESCO Ltd.
11. Mr. Romance Sampa, K.P.A. Consulting
12. Mr. Chricent Sialyanda, Department of Energy, Ministry of Energy and Water Development
13. Ms. Malin Liljert, Program Officer, Energy and Urban Sector Development, SIDA, Embassy of Sweden, Lusaka
14. Mr. Vinod K. Shrivastava, CEO, CORE International, Inc.
15. Mr. Vaso Leno, Consultant, CORE International, Inc.

**ANNEX 3: INITIAL AGENDA FOR THE MEETING OF REWG - ZAMBIA**

<p>TENTATIVE AGENDA FOR MEETING FOR RURAL ELECTRIFICATION SUB-WORKING GROUPS AND USAID CONSULTANTS CHRISMAR HOTEL (21<sup>ST</sup> TO 22<sup>ND</sup> MAY 2003)</p>
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<b>DAY 1 - 21 MAY 2003</b>			
<b>Time</b>	<b>Duration (Minutes)</b>	<b>Activity</b>	<b>Responsible Party</b>
08:30	30	Registration	Department of Energy
09:00	60	Presentation and Discussion on Global Village Energy Partnership (GVEP)	Mr. O. S. Kalumiana, Assistant Director, Department of Energy
<b>10.00</b>	<b>15</b>	<b>TEA B R E A K</b>	
10:15	120	Sub-Working Group Presentations and Discussions: <ul style="list-style-type: none"> <li>➤ Policy and Institutional Sub-Working Group</li> <li>➤ Needs &amp; Resource Assessment, and Technical Options</li> <li>➤ Awareness and Information Dissemination</li> <li>➤ Private Sector and Financing</li> </ul>	Sub-Working Groups
12:15	45	Presentations and Discussion on Recommendations for Further Activities on each Sub-Working Group	USAID
<b>13.00</b>	<b>60</b>	<b>L U N C H</b>	
14:00	60	Continuation of Presentations and Discussion on Recommendations for Further Activities on each Sub-Working Group	USAID
<b>15:00</b>		<b>End of Day 1</b>	
<b>DAY 2 - 22 MAY 2003</b>			
09:00	60	Development of Action Plan	Department of Energy and USAID
<b>10.00</b>	<b>15</b>	<b>B R E A K</b>	
10.15	120	Continuation of Development of Action Plan	Department of Energy and USAID
12:30		Lunch and Closing	Department of Energy

## **ANNEX 4: ZAMBIA REWG: SUB-WORKING GROUP MEMBERS**

### **Sub-Working Group 1: Policy and Institutional Arrangements**

<b>Name</b>	<b>Institution</b>	<b>Contact details</b>
Prof. J. Mwenechanya	Consultant	Phone: 232295
Mr. Romance C. Sampa	E.P.A. Services Limited	P. O. Box 33860 Phone: 225784 Fax: 225785 Cell: 096-748834/097-754664 Email: <a href="mailto:epaservices@zamtel.zm">epaservices@zamtel.zm</a>
Mr. D. M. Mauzu	Private Consultant	P/B 527X, Lusaka Phone: 255352
Mr. L. Shantebe Chiinda	Energy Regulation Board	Phone: 236002 Email: <a href="mailto:lschiinda@erb.org.zm">lschiinda@erb.org.zm</a>

### **Sub-Working Group 2: Financing and Private Sector**

<b>Name</b>	<b>Institution</b>	<b>Contact details</b>
Suya B. M. Chidumayo	CHI-CHI Consultants	P. O. Box 50323, Lusaka Phone: 233409 Email: <a href="mailto:em.chichi@zamtel.zm">em.chichi@zamtel.zm</a>
Ms. Roland Lwiindi	Copperbelt Energy Cooperation	Phone: 02-244062 Fax: 02-244040
Mr. D. J. Mbewe	University of Zambia	P. O. Box 32379, Lusaka Cell: 097-882295
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### **Sub-Working Group 3: Needs Assessments, Resource Assessment and Technical Options**

<b>Name</b>	<b>Institution</b>	<b>Contact details</b>
Prof. F. D. Yamba	Centre for Energy, Environment and Engineering (Z) Limited	P/B Phone: 240267 Email: <a href="mailto:ceeez@coppernet.zm">ceeez@coppernet.zm</a>
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**CORE International, Inc.'s Report on Follow-Up Assistance in Rural Electrification Planning to the Government of the Republic of Zambia**

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**Sub-Working Group 4: Awareness/Information**

<b>Name</b>	<b>Institution</b>	<b>Contact details</b>
Mr. Namukolo Mukutu	Agriculture Consultative Forum (Golden Valley Agricultural Research Trust)	P. O. Box 34878, Lusaka Phone: 233247 Cell: 097-794701
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Ms. Suzyo Ndovi (Proxy to Mr. M. Ililonga)	Zambia Consumer Association	Cell: 097-780940 Email: <a href="mailto:sndovi@mail.com">sndovi@mail.com</a>
Mr. Nason Phiri	Provincial Planning Unit (North-Western Province)	Phone: 08-821760 Fax: 08-821650

## **ANNEX 5: SUMMARY OF RURAL ELECTRIFICATION SUB-WORKING GROUP REPORTS**

The following section provides a summary of reports produced by the (i) Policy and Institutional Issues Sub-Working Group, (ii) the Needs Assessment, Resource Assessment, and Technical Options Sub-Working Group, and (iii) the Awareness and Information Sub-Working Group, respectively, under the REWG during the workshop on May 19-23, 2003. (Note: The fourth group, the Finance and Private Sector Sub-Working Group, did not provide a presentation in this workshop.)

### **A. Policy and Institutional Issues Sub-Working Group**

The report examines institutional arrangements and issues. It also outlines findings and makes recommendations for the most appropriate policy and institutional arrangement to effectively implement and manage the rural electrification program. Policy, information and planning are mainly government issues and include the Ministry of Energy and Water Development (MEWD), Ministry of Finance and National Planning, Planning and Economic Management Department (PEMD), Ministry of Health and Ministry of Education. These institutions are either directly or indirectly involved in rural electrification.

The MEWD is responsible for providing and articulating Energy Policy on behalf of the Government through the Department of Energy. The Ministry was however, recently restructured and this may have an effect on the institutional framework for implementing the rural electrification program. An Inter-Ministerial Rural Electrification Committee is responsible for administering the Rural Electrification Fund. Inadequate allocation of resources to the Rural Electrification Fund has prompted the MEWD to receive applications directly, rather than through the Rural Electrification Committee. This has encouraged direct lobbying of the Ministry by politicians and private citizens.

### **Issues/Findings -- Policy, Information and Planning**

- The government has several organizations and agencies involved in rural electrification; however, these institutions do not have a common forum for sharing information or co-coordinating programs.
- The government's implementation of the rural electrification program has been haphazard due to non-compliance with established procedures for implementing rural electrification projects, as well as erratic funding.
- Government issues related to rural electrification need serious consideration as these have hampered technical evaluation of projects.

- Continuity of political leadership has been disrupted by high turnover of the leadership.
- There is little confidence in the budgeting processing for rural electrification projects, and the budgets are often not adhered to.

**Recommendations:**

1. The government should play a greater role in ensuring dissemination of news on renewable technologies. The government should also organize workshops and seminars in rural areas and invite renewable energy experts to present papers and discuss renewable energy with rural people.
2. The government should develop a policy of providing special incentives to companies that want to bring in machinery for manufacturing renewable energy technologies. The government should also reduce taxes on solar panel accessories.
3. The government should coordinate arrangements with donors where they finance solar electrification of whole villages as opposed to an individual.
4. The ERB inspectorate should be strengthened to detect sub-standard equipment.
5. The possibility for ZESCO, the national utility, to participate in implementing rural electrification through decentralized renewable energy systems needs to be investigated.
6. ERB should register all companies dealing with solar systems to make them adhere to a set of standards. ERB should strengthen its inspectorate to ensure that unregistered companies that continue to sell solar products are severely penalized. ERB should work with ZRA to ensure that all unregistered companies are not allowed to bring in any solar equipment.
7. The government should improve the road network in the country to allow expansion of solar companies into the rural areas.
8. Taxes on solar accessories should be waved, in order to encourage the use of solar energy by more people. The government should set up training institutions or encourage existing ones to set-up courses on renewable energy.
9. ERB should be more active in combating illegal dealers.
10. There is a need to set up a renewable energy fund, which can provide easier access for business and service expansion, the setting up of

- renewable energy enterprises, and the manufacture of renewable energy technologies and components.
11. Develop and consolidate renewable energy bidding and tender documents.
  12. There is a need to develop a program, which leads to the appreciation of research and development with respect to renewable energy technologies and their application. Demonstration of these technologies and their capability is vital. Political users should be involved in the development of these technologies.
  13. The various institutions at MEWD should be unified into one institution to be called the rural electrification board.
  14. All rural electrification projects and programs that will require funding from the GRZ should be integrated into medium term development plans and annual budgets.
  15. The proposed Rural Electrification Agency (REA) should work with relevant institutions to ensure that no sub-standard energy equipment is brought into the country.
  16. Under the current arrangement, companies intending to invest in energy activities require authorization from ZESCO and the Energy Regulation Board. A monopoly cannot be entrusted with the responsibility for authorizing competitors to enter an industry. It is therefore recommended that the Electricity Act and the Energy Regulation Board be amended so that the investment center is the overall authorization authority.

To remove political interference, build confidence, and allow for donors' funds in the rural electrification program, it is recommended that a Rural Electrification Agency (REA) be established as an independent organization with the mandate to receive funds directly from the government, ZESCO, and the donor community.

#### **B. Needs Assessment, Resource Assessment, and Technical Options Sub-Working Group**

**Grid Extension:** It is uneconomical to extend the grid to rural areas because of the high cost of connection, low (low loads) population density and enormous distances between major towns or load centers.

**Photovoltaic Systems (PV):** The PV Solar Home System is being tested through Energy Service Companies (ESCOs) in the Eastern Province to provide alternative cheaper electric energy to rural people.

**Micro/Mini Hydro System:** The north and northwestern province have potential sites for small-scale power generation in Zambia. Mini/Micro Hydro would be the best alternative source of power for these locations to improve accessibility. The preferred sites of electricity generation are mainly those that can sustain run-off river schemes because of low cost and minimal environmental impact. Very little information is available on the mini/micro hydro potential in other parts of the country. Consequentially, there is a need to carry out a reconnaissance and feasibility study to determine the full potential of Mini/micro hydro in Zambia.

**Biomass:** Approximately 66% of the total land area in Zambia is woodland. Wood-fuel and Charcoal meet the needs of about 70% of the rural and urban consumers. Biomass is threatened by the degradation of the woodlands and deforestation in certain parts of the country where the use of wood exceeds the amount of increment. This is more serious for forest resources, which are near urban centers. An estimated 95% of deforestation is attributed to agriculture and settlements while 5% is attributed to wood fuel. The enormous amount of biomass resources in the form of agriculture, forest and municipal waste can be used to meet energy requirements in isolated rural areas to generate electricity using cost effective biomass based technologies.

**Wind:** The average wind speed in Zambia is around 2.5 m/s. This wind speed is low and unfavorable for electricity generation. It is however, suitable for water pumping applications as confirmed by the results of the wind irrigation project in Chisamba.

**Geothermal:** Zambia has more than 80 springs. This points to the existence of worthwhile low enthalpy geothermal reserves, on which very little has been done to utilize this resource for industrial and energy provision purposes. The only electricity generation using Geothermal Technology is at the Kapisha (240 KW) station, which was constructed in 1987 by an initiative of the Italian Government. Unfortunately, the installation has never been loaded due to the absence of infrastructure needed to distribute the electric power to the local community. There is a need to verify existing technological and socio-economic data to gauge whether or not development of any or all the identified sites is viable.

## **Issues/Findings**

### **Outputs**

The objective is to provide rural areas with energy access to reduce poverty and enhance sustainable development. This can be achieved by developing a Rural Electrification Master Plan. The expected outputs of the project are:

- Cabinet Approved Rural Electrification Master Plan,
- Needs Assessment Survey,
- Demand Assessment and,
- Technology Assessment.

### **Activities**

Various activities will be performed to achieve the objectives/outputs stated above such as:

- Initiation of the Rural Electrification Master Plan formulation process,
- Demand assessment,
- Review basis for solar wind data,
- Establish Stations,
- Carry out and analyze measurements,
- Assess Mini/Micro hydro possibilities,
- Assess Biomass resources, and
- Assess Geothermal Resources.

### **C. Awareness and Information Sub-Working Group**

The vision is to ensure that all stakeholders receive appropriate information on the Rural Electrification Program to foster rural development.

The current strengths include the following, which are already in place:

- The National Energy Policy,
- Rural Electrification Fund,
- Rural Electrification Committee,
- Office set up by Ministry of Energy and Water Development (MEWD) for Promoting Private Power Investment; and
- Availability of other Renewable Energy Systems for exploitation and the provision of awareness creation and provision of information by the Global Environmental Facility (GEF).

The current weaknesses include the following:

- Private entrepreneurs and the public are not aware of the existence of a favorable policy environment for promoting rural electrification.
- The existence of the Rural Electrification Fund and the eligibility and selection criteria are generally unknown or misunderstood by the private sector service companies and rural communities.
- Private entrepreneurs may not be fully aware of the available renewable energy technologies.

The challenge is to expand electricity access on a large scale in the rural and semi-urban areas.

The Rural Electrification Program Strategies include the creation of a Developmental Support Communication Center for Rural Electrification (DSC-RE) to create awareness and provide information concerning Rural Electrification. This could also provide a platform for building consensus, skills-transfer, community empowerment, influencing policy makers, clarifying misconceptions and reinforcing other communication activities.

**ANNEX 6: THE GLOBAL VILLAGE ENERGY PARTNERSHIP (GVEP)**

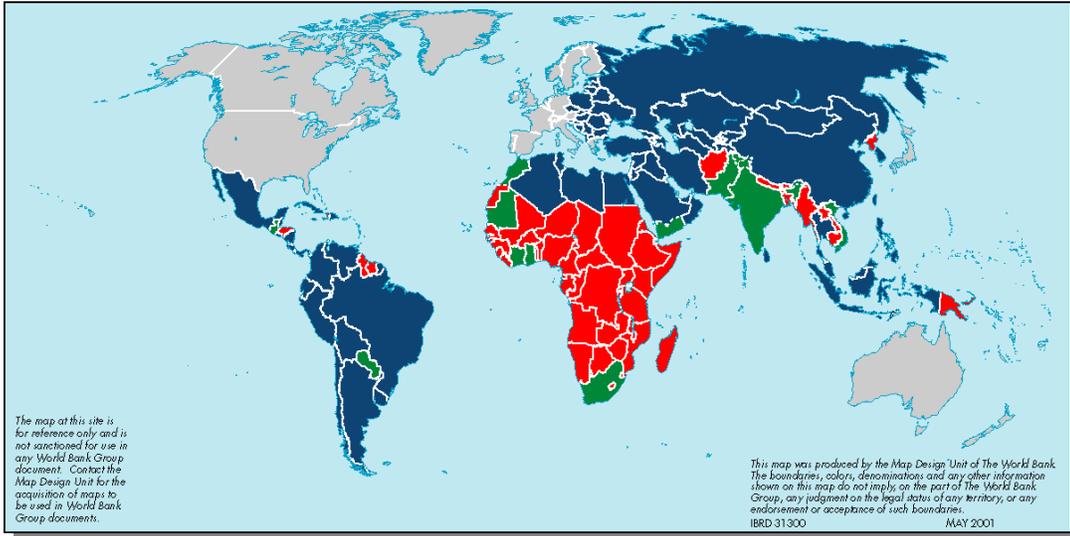
The proceeding pages contain the presentation on GVEP provided by CORE International Inc., during the workshop in Zambia on May 19, 2003.



Slide 2

## The Global Village Energy Partnership

### Electricity Access



**Red: 3 to 33%**  
**Green: 33 to 66%**  
**Blue: Over 66%**





































Slide 21













**ANNEX 7: PRELIMINARY IDEAS AND COMMENTS ON RURAL ELECTRIFICATION AUTHORITY (REA) AND RURAL ELECTRIFICATION FUND (REF) IN ZAMBIA**

**(Reflection on the four-page document sent by DOE, Zambia on April 16, 2003)**

**I. The New Approach for RE in Zambia**

1. The stated goal for achieving full rural electrification (RE) by 2012 (page 4, paragraph 4 of the “Government Policy on Rural Electrification”) looks too optimistic, unless Zambia believes that it will be able to internally generate a significant portion of the funding needed to achieve this ambitious goal.
2. The proposed new policy approach, in principal, is correct when it indicates a potential Rural Electrification Authority (REA) and the creation of an enabling environment to promote active participation of the private sector in rural electrification (RE). However, the creation of the enabling environment for private participation will likely take, at best, several years, and achieving it is one of most challenging undertakings for most developing country governments.
3. The role and participation of international financial institutions such as the World Bank (WB) is critical in preparing and implementing a large countrywide RE program. The Zambian Government, in partnership with the WB, should lead the RE effort. USAID and other bilateral donors will complement the effort by providing some of the required technical assistance and training. These will include TA to (i) prepare the RE program, (ii) establish RE institutions, (iii) build institutional capacity; as well as, (iv) potentially, participate in the RE projects development through co-financing the RE program.
4. The new approach should clearly state the commitment of the Zambian Government to develop and implement policies that will provide for (i) a clear division of roles and responsibilities among all RE stakeholders, (ii) assigning to the new REA all management issues related to RE program implementation and monitoring, as well as the administrating of the proposed Rural Electrification Fund (REF), (iii) adopting open, transparent, and internationally accepted rules and procedures for the utilization of funds and REF administration, and (iv) a cost reflective tariff system and well targeted subsidy policy.
5. Other RE program implementation implications to be considered by GRZ are: (i) the need to strictly screen RE investments on the basis of

- quantifiable benefits; (ii) recognize the need for rational cost recovery policies; (iii) analyze the project's financial impact and return; (iv) carefully review subsidization policies; (v) monitor growth in electricity consumption and (vi) institute elements that would ensure sustainability.
6. Electrification and increased access to modern commercial energy resources is considered an important vehicle of Zambia's PRGS in achieving the goal of poverty alleviation and sustainable rural development. Therefore, there is a clear need for the GRZ to develop an integrated market oriented policy and a comprehensive nationwide program for rural electrification and the supporting institutional structures to implement it. As donors are, in principle, committed towards PRGS and GRZ mid term expenditure program (MTEF), they may commit resources to the RE program funding. This will obviously be subject to the GRZ's continuous demonstrated commitment to implementing best RE policies and practices based on best practices in other countries.

## **II. The Proposed Rural Electrification Authority (REA) - Policy Issues**

1. REA should be the focal point for all rural electrification activities. Based on successful experiences elsewhere, REA will need to be given operating autonomy, responsibility, and budget with strict accountability for meeting the GOZ RE targets. REA should be urged to exercise dynamic leadership and management, supported by a slate of well articulated program incentives.
2. As a Government agency, REA will need to be reporting to the REA Board. It will manage the REF, and be responsible for drafting the RE planning process and RE strategy preparation, implementation management, and monitoring of the RE process and information dissemination. REA may be involved in drafting and proposing policy directives for targeting and administering subsidies, as well. It will need to closely coordinate its activities with the DOE and the Regulator. In order to perform all these functions, REA will have to develop comprehensive policies, rules, procedures, guidelines, etc. for RE programs/projects identification, preparation, financing, implementation, supervision, monitoring, and evaluation.
3. Policy oversight of REA would be the responsibility of the REA Supervisory/Management Board. This Board should have a high level of participation and buy-in both within the GRZ and the broader stakeholder community. Therefore, the Board should have representation from the Ministry of Finance and the Ministry of Agriculture, as well as key line ministries. Also, given the obvious regulatory issues that would be present with respect to granting licenses and franchises, ERB should also be represented on the Board. Other participants to the Board should include

- representatives from consumers associations, and the private sector. The Chairman of the Board should be the Minister for Energy and Water Development or the Deputy Minister. It is advisable that major potential donors in the RE program, such as the World Bank, be invited to participate in the Board as non-voting observers.
4. Development of the Rural Electrification Master Plan (REMP) will be one of REA's first activities. Priority projects identified in the REMP may be subject to feasibility studies financed by REA itself. REA will be assigned with facilitating the tendering and licensing procedures for concessions in RE as well.
  5. REA will lead and coordinate a wide variety of RE activities including institutional capacity building activities, as well as a countrywide public awareness and outreach program.
  6. REA will be involved in the fundraising process, cooperating closely with the Government ministries.

### **III. Rural Electrification Fund Restructuring - Policy Issues**

The GRZ has established a Rural Electrification Fund. It is financed by a 3% a levy on electricity supplied by ZESCO. This Fund provides limited resources, approximately \$5 million annually, for addressing rural electricity requirements of the country. The capitalization and management of the Fund needs further review, as the Fund has not been as effective in supporting the overall Government policy for increasing RE applications due to a variety of institutional reasons.

The overall objective of the Fund is to focus on extending the main national grid to rural areas currently not served, which represents nearly 80% of the Zambian population. The extension of the national grid, to amplify RE services, has proven to be very costly in Zambia as in many other countries. Therefore, Zambia is carefully reviewing how the impact of the Fund can be enhanced, by promoting off-grid decentralized RE projects utilizing alternative renewable electricity sources such as solar, biomass, micro hydro schemes, etc. The most apparent enhancement is Zambia 's solar energy applications.

Some general policy comments on the administration of the Fund follow:

- In order to ensure transparency, fairness, and accountability, as well as to be able to attract donor support and participation, the Fund will need to be managed and operated along commercial lines with full transparency and accountability. This does not prevent the GRZ from exercising its legitimate role of policymaking, strategy development, implementation, and monitoring and supervision through an appropriate structure of the REA Supervisory Board.

- Rules and procedures of management and administration of the Fund should be based on accepted international best practices. This can be achieved by seeking input from donors, consumer groups and other private sector entities, perhaps through several open public hearings. Such a process will help the GRZ in developing practical and rational procedures for the design and utilization of the Fund.
- Department of Energy (DOE) and, to some extent the Regulatory Authority, should be initially assigned a wider role, undertaking greater responsibility for, and authority over, the Fund in terms of policy implementation and Fund management supervision. Once the REA is fully operational, the administration of the Fund should be under its responsibility.
- The Fund may need to be incorporated within REA by a government decree.
- The government needs to clearly provide for contribution into the Fund through its own budget. On the other hand, the government should seek the maximum leveraging of the Fund with external resources. The WB could potentially be the most important co-financiers.
- The Board of REA should exercise supervisory authorities and policy functions, and shift the day-to-day operation and management to a "Fund Director/Manager".
- Internationally accepted rules and procedures for fund operations and management need to be developed and enforced.

The management of RE Funds needs to consider the new trends and patterns of RE financing. The key principles to be considered are:

- (i) RE Fund should employ a variety of models for funding projects and programs. It should participate, with priority, in co-financing RE projects/programs by maximizing cost sharing with private investors and RE consumers. It may provide capital subsidies based on competition for least subsidies. It may create consumer credit schemes channeling funding for this through the local commercial banking system. And, it may leverage credit guarantee schemes for RE and rural development. This would require that the Fund be credible and have strong management.
- (ii) The Board of the Fund should ensure that funds are not diverted to other uses. First, no central authority will have the right to use the Fund for purposes other than those falling within the mandate of the REA/Fund and the approved activity plans for each year. Second, administering the disbursement of funds through a banking system and, assigning it clear responsibilities for checking and disbursing against agreed project

completion documentation, may help avoid the diversion of funds on the end use side.

- (iii) The government should capitalize the fund adequately. Sources of funds for doing this include privatization proceeds, government bonds and budgets, multi- and bilateral donor financing, and commercial and private sector financing.
- (iv) REF should be managed, in policy terms, by a 'committee' consisting of representatives of all key stakeholders with a vested interest in RE and guided by the relevant ministry, which is in charge of the energy sector. This can be achieved by placing the Fund under REA.
- (v) Operational management of the fund should be outside of government structures, and handled along commercial lines, while using economic and social criteria in the process of assessment and evaluation of RE project proposals.
- (vi) Use competition for funds. Competition for subsidies can help minimize RE program costs and promote quality customer service. This may be achieved by increasing the number of organizations that could access the fund.
- (vii) Target subsidies. Where resources are limited, selective targeting of subsidies is always preferable. By and large the people who do not have connections are the poor and indigenous communities. A subsidy, based on the average cost of connections, may allow for an apparent average profit on each connection. Targeting subsidies to specific groups or locations may complicate administration and planning. Initially, the government may try to target subsidies by attaching to the RE plans a list of communities and the expected number of connections in each.
- (viii) Incentives need to be provided to the service provider. Penalties for failing to complete the program should be introduced. "Sculpting" the connection payment, for example, by paying larger subsidies for connecting more distant communities, might provide better incentives.
- (ix) Covering the cost of service. The sector regulator needs to regulate the prices that can be charged to the customers.
- (x) Connection as a measure of output. Linking payment of the subsidy to a measure of service or through output would reduce the risk of poor service. It would also greatly increase the complexity and burden of monitoring. So, while connections are not a perfect measure, they do have the benefit of being easily verifiable, and therefore useful in large-scale programs.

**ANNEX 8: LIST OF ZAMBIAN OFFICIALS AND DONOR REPRESENTATIVES  
MET DURING THE TRIP ON May 19–23, 2003**

1. Mr. Sichinga Austin C. J., Ph.D., Permanent Secretary, Ministry of Energy and Water Development, Zambia
2. Mr. Wilfred Serenje, Director, Department of Energy, Ministry of Energy and Water Development, Zambia
3. Mr. Oscar Kalumiana, Deputy Director, Department of Energy, Ministry of Energy and Water Development, Zambia
4. Ms. Malin Liljert, Program Officer, Energy and Urban Sector Development, SIDA, Embassy of Sweden, Lusaka
5. Mr. Ernest Matengo, Information Analyst, The World Bank Country Office, Lusaka
6. Mr. Dan Griffiths, Economic Growth (SO1) Team Leader, USAD Mission in Lusaka
7. Mr. Cris Mayunda, Economic Growth Deputy Team Leader, USAD Mission in Lusaka

**ANNEX 9: COMMENTS ON CORE'S WORK IN ZAMBIA**

The proceeding pages contain e-mail communications with comments on CORE's work during the mission in Zambia on May 19-23, 2003.

Dear Oscar,

I trust you are doing well and working hard as always. Again, it was a real pleasure to visit with you during your stay in Washington several weeks ago. GVEP held its first Board meeting this past week and all is well as we press on to begin implementation in certain key countries. From our perspective we very much consider Zambia to be such a key country and we'd like it to be the first country to hold a GVEP in-country consultation for the purposes of designing a country action plan.

To that end, Mr. Vinod Shrivastava will be in Zambia next week in order to (i) work with the Rural Electrification Working Group and assist them in developing a rural electrification blueprint for Zambia; and (ii) work with GRZ and other stakeholders to move the GVEP process forward, especially as it relates to both the structure and the timing of the in-country GVEP consultation.

USAID is extremely confident of the work Mr. Shrivastava is doing and given the comments we've heard from a number of different individuals he is being well received. I encourage you and your colleagues to take advantage of Mr. Shrivastava's time in your country to help you in anyway he can to advance the rural electrification objectives of your country.

As always, please feel free to contact this office at anytime if you have questions, concerns or suggestions. We stand ready to assist in anyway we can to help Zambia implement the GVEP activities.

Cordially yours,

Griff

Griffin Thompson, Ph.D.  
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Economic Growth, Agriculture and Trade Bureau  
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From: Department Of Energy  
Sent: Wednesday, June 04, 2003 12:57 PM  
To: Thompson, Griffin  
Cc: Muyunda, Cris; Gunther, Helen; Weynand, Gordon; Warr, Kevin;  
vshrivastava@coreintl.com; lvarrick@coreintl.com; wsdoe@zamnet.zm;  
vleno@coreintl.com

Subject: Re: USAID GVEP energy support

Dear Mr. Thompson,

I am sorry to have not replied to your mail for some time now. I wish to inform you that we had a wonderful time with Vinod and Vaso. We found their input most rewarding and the Rural Electrification Working Group Members are very happy.

I will send you the action plan we developed once I settle down.

With regard to GVEP, we have formed (on advice from Vinod and Vaso), a National GVERP Secretariat at the Department of Energy and will early next week issue a press statement inviting national stakeholders to declare their interest in GVEP activities with the secretariat.

I am particularly excited with the work so far and sincerely thank USAID for the critical input you provided. We look forward to further collaboration!

Best regards,

Oscar  
Deputy Director  
Department of Energy  
Ministry of Energy and Water Development  
Zambia

Oscar,

Thank you so much for the update on the fine work you are doing in the context of the Rural Electrification Working Group and GVEP. I am happy to hear of your satisfaction with the progress being and with the support being provided through USAID. We are also extremely encouraged by the leadership you and your ministry are demonstrating and look forward to continuing our collaboration with you. You and all the others have provided the necessary foundation for a successful program. The establishment of a GVEP Secretariat will help ensure that the momentum gained so far will continue all the way through full implementation.

Please don't hesitate in communicating any concerns, questions or recommendations you may have with respect to GVEP. We look forward to receiving the action plan and subsequent information.

Kind regards,

Griff Thompson

Subject: RE: Meeting Request RE: Zambia

Date: Wed, 11 Jun 2003 11:25:20 -0400

From: "Muyunda, Cris" <Cmuyunda@usaid.gov>

To: "Vinod K. Shrivastava" <vshrivastava@coreintl.com>, "Warr, Kevin" <KWarr@usaid.gov>

CC: Ellen Morris <ellen@sustainable-solutions.com>, Dominique Lallement <Dlallement@Worldbank.Org>, Ellen Morris <morrise@infohouse.com>, Judy Siegal <judy@energyandsecurity.com>, Katharine Gratwick <kgratwick@worldbank.org>, Susan McDade <susan.mcdade@undp.org>, Vaso Leno <Vleno@coreintl.com>, "Jones, Jheri" <JhJones@usaid.gov>, "Thompson, Griffin" <GThompson@usaid.gov>, "Hagelman, CWT" <CWTHagelman@usaid.gov>, "Gunther, Helen" <hgunther@usaid.gov>, "Mulenga, Joy" <jmulenga@usaid.gov>, Junhui Wu <jwu@worldbank.org>, Lois Varrick <lvarrick@coreintl.com>

On another note, as a follow up to the work of USAID/W sponsored consultants on rural electrification (VINOD and VASO) and President Bush's Global Village Energy Partnership (GVEP) program, USAID/Zambia Acting Mission Director, Barbara Hughes, accompanied by the SO1 Team (Cris Muyunda and Matilda Chibale ) met with Energy Permanent Secretary Austin Sichinga on June 6, 2003. The permanent secretary expressed happiness with the quality of the work of the USAID consultants and said Zambia would be moving forward to put in place all the logistics necessary to participate in GVEP as advised by the USAID consultants.

The P/S also briefed USAID on GRZ's position on the future of ZESCO, rural electrification levy, the \$120 million potential World Bank "increased energy access program" and the Southern African Power Pool.

Cheers

Chris Muyunda