

ANNEX I: BELIEFS AUDIT QUESTIONNAIRE AND LIST OF RESPONDENTS**1 BELIEFS AUDIT QUESTIONNAIRE**

Name: _____ Position: _____

Institution: _____ Interviewer: _____ Date: ___/___/2015

Phone number: _____ E-mail: _____

Brief introduction:

- Purpose of the study: to prepare the Rural Energy Master Plan for Liberia
- The Rural Energy Master Plan Liberia will have 2030 as timescale and include all areas outside Monrovia
- This beliefs audit is confidential and results will be presented in an aggregated way
- Objective of the questionnaire is to understand vision in Liberia regarding rural electrification: goals, priorities, approach

A. General Targets

1. There is currently a 2% public electrification rate in Liberia, the majority of which in Monrovia. What do you think could be genuinely achievable as an electrification target for the population outside of Monrovia:

(answer all in percentage)

- 1.1. In the next 5 years _____ %
 1.2. In the next 10 years _____ %
 1.3. In the next 15 years _____ %

2. In the nearly ten year period between the end of the war and the beginning of the Ebola crisis not much electrification happened. What do you think were the main barriers to electrification?

(select all appropriate options)

- 2.1. Absence of funding
 2.2. Lack of human capacity
 2.3. Exclusion of the Government's priorities
 2.4. Limited private sector initiative
 2.5. Other Which? _____

3. What are the most important impacts and benefits of electrification for the population?

(select and order all from 1 - most important to 6 – less important)

- 3.1. Education
 3.2. Health
 3.3. Productivity & Business
 3.4. Communication & Entertainment
 3.5. Security
 3.6. Other Which? _____

4. What should be the distribution of electrified people between large cities (including county capitals) versus rural areas?

4.1. In the next 5 years:

	Large cities		Rural areas	(select one option)
4.1.1. Option 1	0%	vs.	100%	<input type="radio"/>
4.1.2. Option 2	25%	vs.	75%	<input type="radio"/>
4.1.3. Option 3	50%	vs.	50%	<input type="radio"/>
4.1.4. Option 4	75%	vs.	25%	<input type="radio"/>
4.1.5. Option 5	100%	vs.	0%	<input type="radio"/>
4.1.6. Other	Which? _____		_____	<input type="radio"/>

4.2. In the next 10 to 15 years:

	Large cities		Rural areas	(select one option)
4.2.1. Option 1	0%	vs.	100%	<input type="radio"/>
4.2.2. Option 2	25%	vs.	75%	<input type="radio"/>
4.2.3. Option 3	50%	vs.	50%	<input type="radio"/>
4.2.4. Option 4	75%	vs.	25%	<input type="radio"/>
4.2.5. Option 5	100%	vs.	0%	<input type="radio"/>
4.2.6. Other	Which? _____		_____	<input type="radio"/>

B. Specific targets

i. Electrification

5. Should all county capitals be electrified by the year 2030?

(select one option)

- 5.1. No
 5.2. Yes

6. What do you consider a realistic target for electrification of locations and buildings?

6.1. In the next 5 years:

(answer all in percentage)

- 6.1.1. District capitals _____ %
 6.1.2. Settlements with more than 1000 inhabitants _____ %
 6.1.3. Settlements with less than 1000 inhabitants _____ %
 6.1.4. Health facilities _____ %
 6.1.5. Schools _____ %
 6.1.6. Administrative buildings _____ %

6.2. In the next 10 to 15 years:

(answer all in percentage)

- 6.2.1. District capitals _____ %
 6.2.2. Settlements with more than 1000 inhabitants _____ %
 6.2.3. Settlements with less than 1000 inhabitants _____ %
 6.2.4. Health facilities _____ %
 6.2.5. Schools _____ %
 6.2.6. Administrative buildings _____ %

7. (For County Questionnaires only) What are the 5 settlements you think should be electrified first in your county?

(answer name of settlement – no order required)

- 7.1. Settlement 1 _____
- 7.2. Settlement 2 _____
- 7.3. Settlement 3 _____
- 7.4. Settlement 4 _____
- 7.5. Settlement 5 _____

8. Should Solar Portable Lamps be promoted for the population not electrified?

(select one option)

- 8.1. No
- 8.2. Yes If yes, how? (select one option, if applicable)
 - 8.2.1. Offering them
 - 8.2.2. Making them available at reasonable prices
 - 8.2.3. Creating a monthly payment system (rent)
 - 8.2.4. Other Which? _____

ii. Cooking

9. Should Liquid Petroleum Gas (LPG) be promoted for the large cities and urban areas?

(select one option)

- 9.1. No
- 9.2. Yes If yes, how? (select one option, if applicable)
 - 9.2.1. Promoting smaller sizes (like 6 kg cylinders)
 - 9.2.2. Making them available at reasonable prices
 - 9.2.3. Renting the cylinder and accessories
 - 9.2.4. Subsidizing price
 - 9.2.5. Other Which? _____

10. Should efficient cook stoves for charcoal be promoted for the large cities and urban areas?

(select one option)

- 10.1. No
- 10.2. Yes If yes, how? (select one option, if applicable)
 - 10.2.1. Offering the cook stoves
 - 10.2.2. Making them available at reasonable prices
 - 10.2.3. Creating a monthly payment system (rent)
 - 10.2.4. Other Which? _____

11. Should efficient cook stoves for wood be promoted for rural areas?

(select one option)

- 11.1. No
- 11.2. Yes If yes, how? (select one option, if applicable)
 - 11.2.1. Offering the cook stoves
 - 11.2.2. Making them available at reasonable prices
 - 11.2.3. Creating a monthly payment system (rent)
 - 11.2.4. Other Which? _____

iii. Diesel for generators

12. Is diesel/gasoline easily available in all the counties?

(select one option)

12.1. Yes

12.2. No If not, why? *(select one option, if applicable)*

12.2.1. Lack of distribution system

12.2.2. Inadequate transportation network

12.2.3. Low demand

12.2.4. Other Which? _____

C. Priorities

13. What should be electrified first?

(select and order all from 1 - most important to 7 – less important)

13.1. Schools

13.2. Health facilities

13.3. Street lighting

13.4. Administrative buildings

13.5. Households

13.6. Businesses

13.7. Other Which? _____

14. Consider you have a certain budget that can only be used for one and one only electrification purpose of your choice. What would be your first option?

14.1. Considering the source of generation: *(select only one option)*

14.1.1. Would you prefer to electrify 500 households with efficient diesel generators, but the households would still have to pay for the diesel consumption?

or

14.1.2. Would you spend the same money electrifying only 100 households with solar panels and batteries, and these households would have to pay very few for energy?

14.2. Considering the location: *(select only one option)*

14.2.1. Would you prefer to electrify 150 households distributed throughout the nation, at the rate of 10 per each county?

or

14.2.2. Would you spend the same money electrifying 300 households, all concentrated in only one county?

14.3. Considering the period: *(select only one option)*

14.3.1. Would you prefer to electrify 100 households with full day (24 h) current?

or

14.3.2. Would you spend the same money electrifying 200 households with half day (12 h) current, from 6 PM to 6 AM

D. Funding

15. What are the most important sources of funding for rural electrification?

(select and order all from 1 - most important to 6 – less important)

- 15.1. Grants/concessional loans
- 15.2. Tariffs from clients
- 15.3. State budget
- 15.4. Private sector investment
- 15.5. Additional taxation on diesel
- 15.6. Other Which? _____

16. What should grants and concessional loans be used to subsidize?

(select one option)

- 16.1. Just the running costs
- 16.2. Just the investment
- 16.3. Both of the above
- 16.4. None of the above

17. Should electricity have different prices in rural areas according to location and cost of production/transmission?

(select one option)

- 17.1. No
- 17.2. Yes

18. Should there be a subsidy (sometimes called social tariff) for electrification for clients with the lower income?

(select one option)

- 18.1. No
- 18.2. Yes If yes, how to finance this? *(select all applicable options)*
 - 18.2.1. Applying additional taxation on diesel and gasoline
 - 18.2.2. Using donors money
 - 18.2.3. Using government revenues
 - 18.2.4. Additional charging of clients with higher income
 - 18.2.5. Other Which? _____

E. Institutional/policy

19. Should the Liberia Electricity Corporation (LEC) be focused only in Monrovia?

(select one option)

- 19.1. No
- 19.2. Yes

20. Who should manage the mini-grids (outside the national grid)?

(select one option)

- 20.1. LEC
- 20.2. Small local cooperatives
- 20.3. Regional authorities
- 20.4. Private sector
- 20.5. Other Which? _____

F. (For County Questionnaires only) Other questions

- 21. What is the local price of diesel (recent average)? _____Liberian Dollars per gallon
- 22. What is the price of 1 bag of charcoal (recent average)? _____Liberian Dollars per bag
- 23. What is the daily cost of renting 1 Amp of current (estimate)? _____Liberian Dollars per Amp per day
- 24. How much does it cost to charge a mobile phone (estimate)? _____Liberian Dollars per charge
- 25. How much do D batteries cost (estimate)? _____Liberian dollars per 2 batteries
- 26. What percentage of households in the county capital rents current (estimate)? _____%
- 27. What percentage of families in the county capital owns generator (estimate)? _____%

THANK YOU

2 LIST OF RESPONDENTS

Table 2.1 - List of respondents.

Type of Authority	Institution	Position
<i>Central</i>	Energy and Security Group	Energy Specialist
<i>Central</i>	Grand Bassa County, MLME	Mining Agent
<i>Central</i>	Grand Cape Mount County, MLME	Land Commissioner
<i>Central</i>	Grand Gedeh County, MLME	Regional Mining Coordinator
<i>Central</i>	LEC	Deputy CEO
<i>Central</i>	Lofa County, MIA	Asst. Supt for Development/ Acting Supt.
<i>Central</i>	MLME	Director
<i>Central</i>	Rivercess County, MLME	Minister
<i>Central</i>	RREA	Administrative Director
<i>Central</i>	RREA	Executive Director
<i>Central</i>	RREA	Finance Director
<i>Central</i>	RREA	Procurement Director
<i>Central</i>	RREA	Progress Director
<i>Central</i>	Sinoe County, MLME	Regional Coordinator
<i>Local</i>	Bomi County	Assistant County Surveyor
<i>Local</i>	Bomi County	Superintendent
<i>Local</i>	Bong County	Mining Agent/ Regional Coordinator
<i>Local</i>	Bong County, MIA	Acting Superintendent
<i>Local</i>	Gbarpolu County	Acting Superintendent
<i>Local</i>	Grand Bassa County	Superintendent
<i>Local</i>	Grand Cape Mount County	Acting Superintendent
<i>Local</i>	Grand Gedeh County	Superintendent
<i>Local</i>	Grand Kru County	Acting Superintendent
<i>Local</i>	Grand Kru County	Mining Agent/ Regional Coordinator
<i>Local</i>	Lofa County, MIA	District Commissioner, Zorzor District
<i>Local</i>	Lofa County, MLME	Assistant County Surveyor
<i>Local</i>	Margibi County	County Surveyor
<i>Local</i>	Margibi County	Superintendent
<i>Local</i>	Margibi County, Kakata Capital	Acting Superintendent

RURAL ENERGY STRATEGY AND MASTER PLAN FOR LIBERIA

TECHNICAL REPORT

<i>Local</i>	Maryland County	Resident Land Surveyor
<i>Local</i>	Maryland County	Superintendent
<i>Local</i>	MLME	Assistant County Surveyor
<i>Local</i>	Montserrado County	Acting Superintendent
<i>Local</i>	Montserrado County	Superintendent
<i>Local</i>	Montserrado County, Bentol City	City Mayor
<i>Local</i>	Nimba County	Acting Resident Land Surveyor
<i>Local</i>	Nimba County	Superintendent
<i>Local</i>	Nimba County, Ganta City	City Mayor
<i>Local</i>	Rivercess County, Cesstos	Acting Superintendent
<i>Local</i>	River Gee County	Superintendent
<i>Local</i>	River Gee County, Fish Town	City Mayor
<i>Local</i>	Sinoe county	Superintendent
<i>Other</i>	Bomi County, Tubmanburg	Total Filling Station Supervisor
<i>Other</i>	Bong County, Gbarnga	Petrol Seller
<i>Other</i>	Bong County, Totota	Petrol Seller/ Station Manager
<i>Other</i>	Gbarpolu county	Resident Land Surveyor
<i>Other</i>	Gbarpolu County, Happy Home Business Center	Petrol Seller
<i>Other</i>	Grand Bassa County, Buchanan	Petrol seller
<i>Other</i>	Grand Cape Mount County, Robertsport	Petrol Dealer/ Total
<i>Other</i>	Grand Gedeh County, Zwedru	Petrol Seller
<i>Other</i>	Grand Kru County, Barclayville	Petrol Seller
<i>Other</i>	Lofa County	Petrol Seller
<i>Other</i>	Margibi County, Kakata	Petrol Seller
<i>Other</i>	Maryland County	Petrol Seller
<i>Other</i>	Montserrado County, Monrovia	Manager/ Petrol Seller
<i>Other</i>	Nimba County, Ganta City	Petrol Seller
<i>Other</i>	Nimba County, Sanniquellie City	Petrol Seller
<i>Other</i>	Rivercess County, Cesstos City	Petrol Seller
<i>Other</i>	River Gee County, Fish Town	Petrol seller
<i>Other</i>	Sinoe County	Petrol Seller