



Sierra Leone presentation on the annual ECOWAS-EIS workshop

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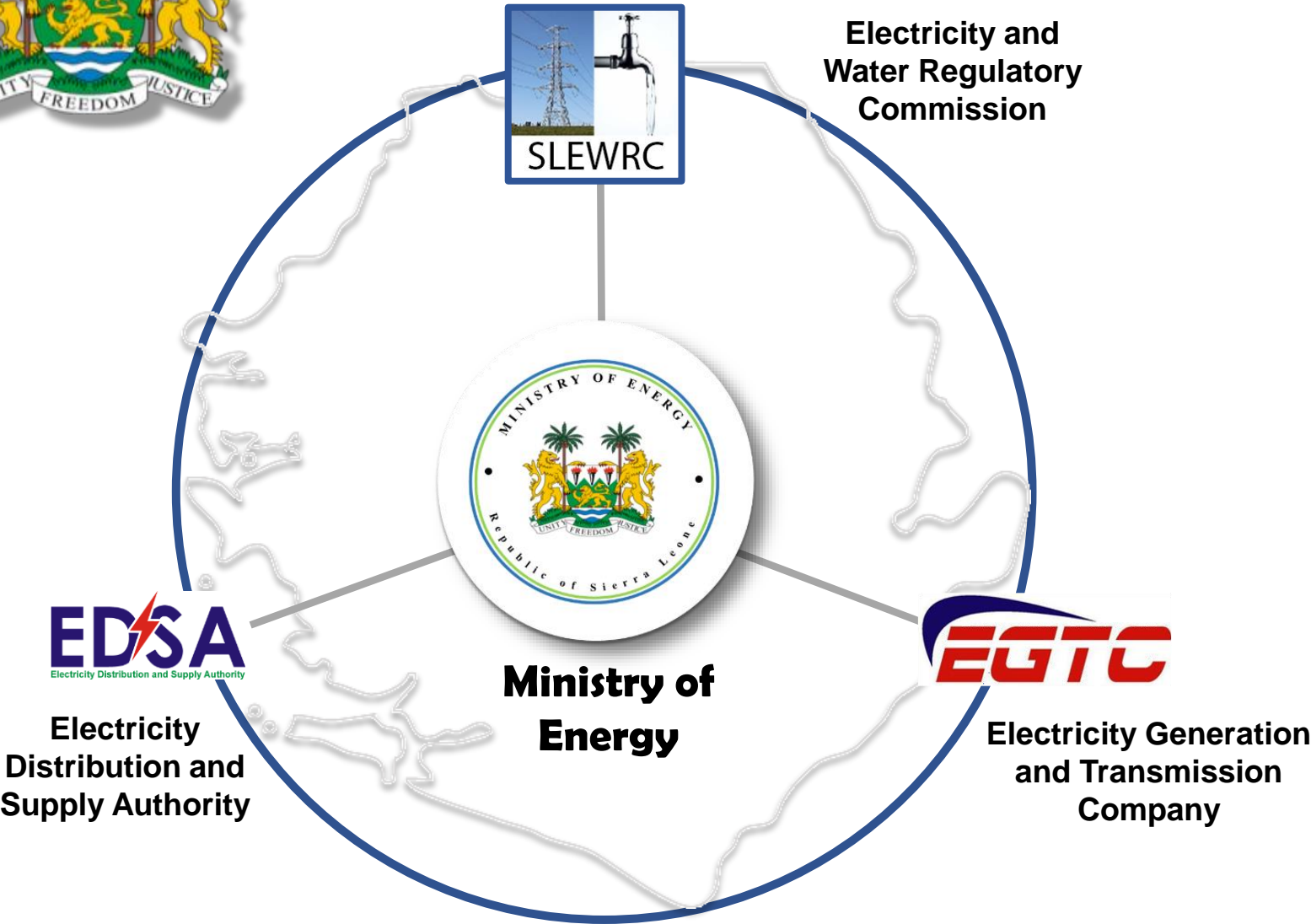


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Energy Sector Diagram



The National Electricity Act 2011 unbundled the vertically integrated utility and created :

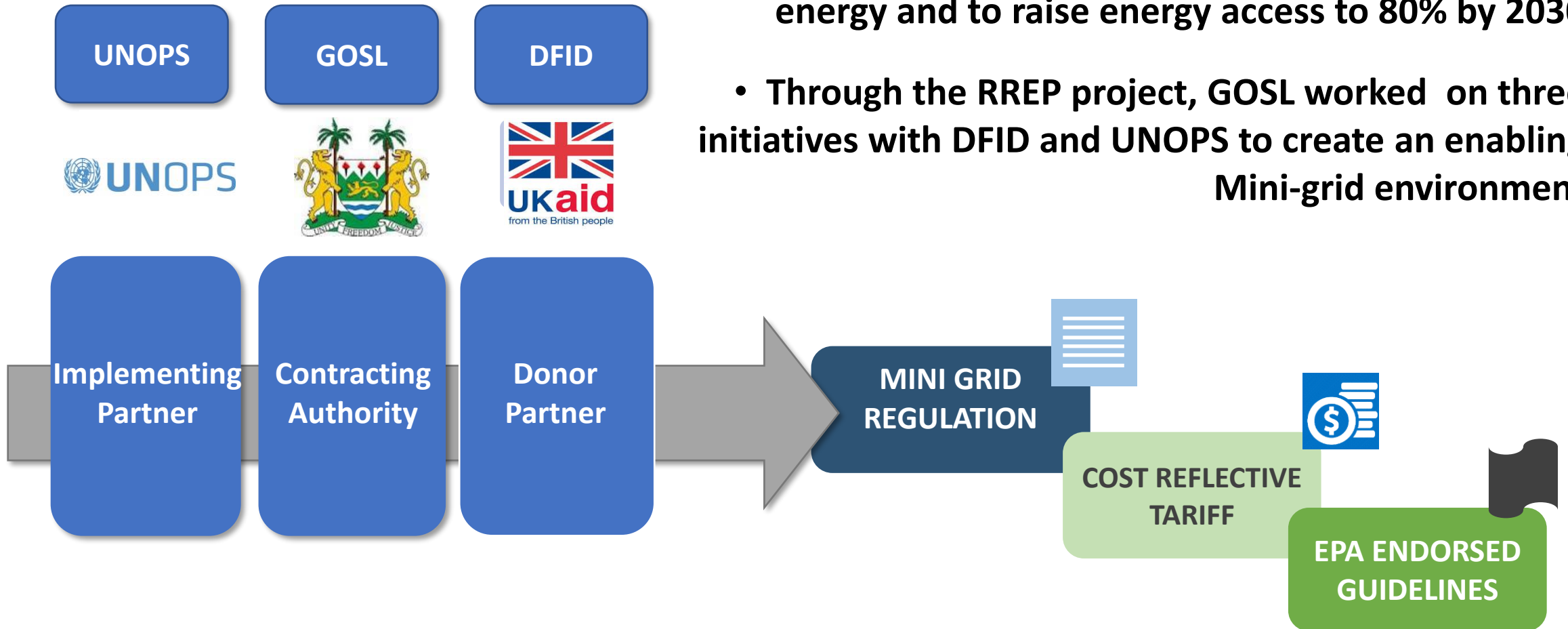
The Electricity Generation and Transmission Company, (EGTC) and the Electricity Distribution and Supply Authority, (EDSA).

The sector is monitored by the Ministry of Energy (MoE) and the Electricity and Water Regulatory Commission (EWRC) acts as a regulator.

EGTC is responsible for the generation of electricity and transmission at 66kV and higher, whereas EDSA is responsible for the sub-transmission and the distribution network.

Development of Enabling Environment

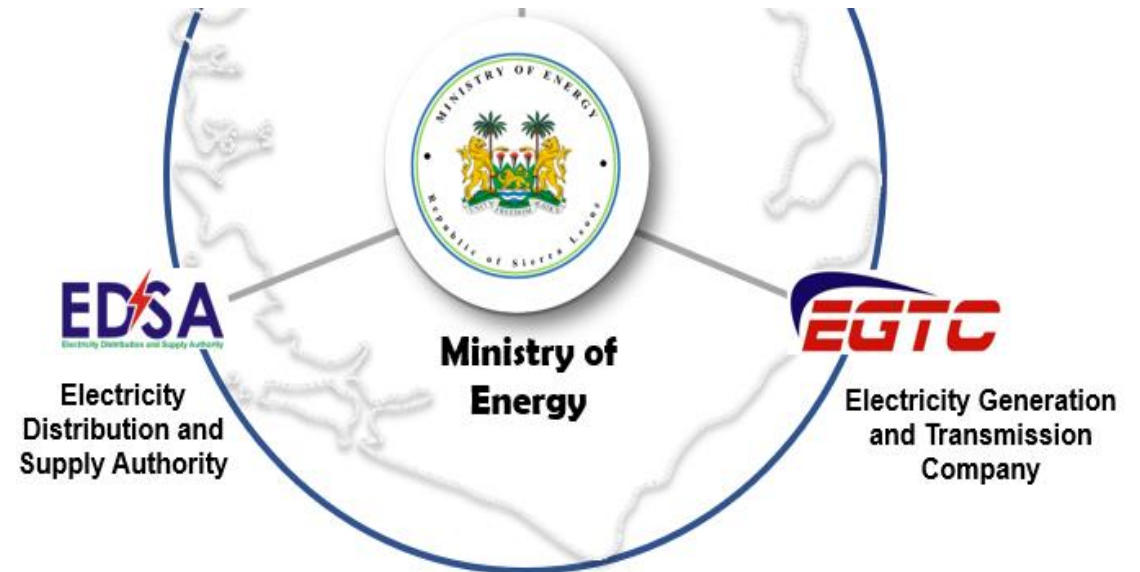
- GOSL committed to increasing provision of renewable energy and to raise energy access to 80% by 2030
- Through the RREP project, GOSL worked on three initiatives with DFID and UNOPS to create an enabling Mini-grid environment





INSTITUTIONAL ANCHORING OF DATA COLLECTION AND PUBLICATION

- a) Ministry of Energy is Responsible for collating all the data from the sector entities
- b) EDSA, EGTC, EWRC, private partners, donors are involved in the process (World Bank, ECREEE, UNDP, IRENA)





Methodology of Data Collection

Data collection involves conducting surveys and administrative data from entities and clients or service users

Excel is mostly used for data analysis and storage

The main actors in the sector are EGTC, EDSA, EWRC, REASL, GIZ, WB, UNDP, the households, private power producers, off-grid providers, industrial businesses and institutions

Rural Renewable Energy Project, Sierra Leone

Overview of Connections & Beneficiaries



CONNECTION STATUS

OPERATOR: -

Workpackage: -

Total Connections
18,693

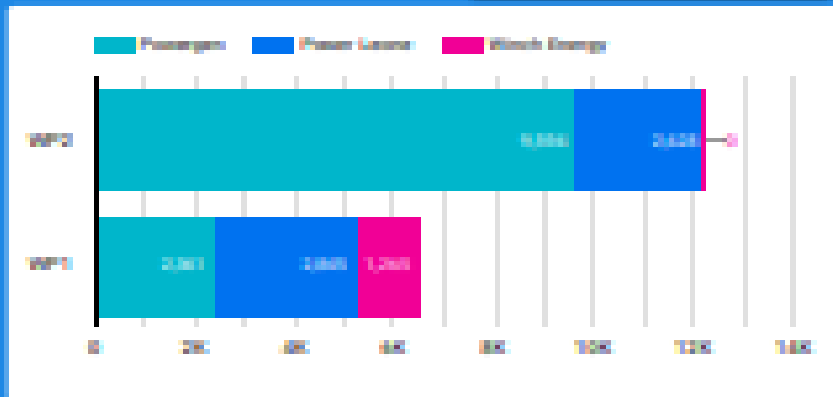
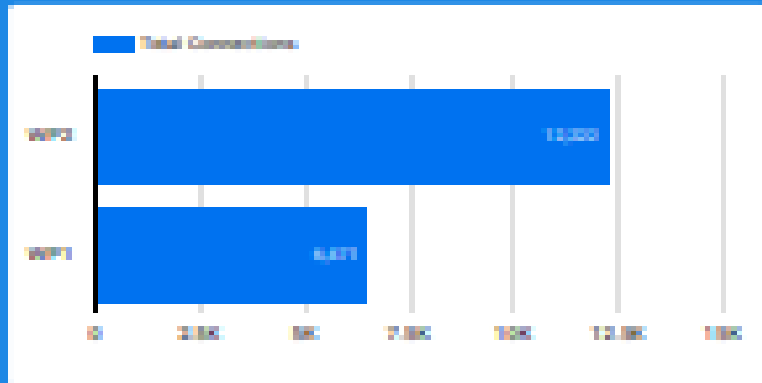
HH Connections
16,798

Business Connections
1,495

School Connections
187

Other Connections
212

COMMUNITIES ELECTRIFIED
81



BENEFICIARY STATUS

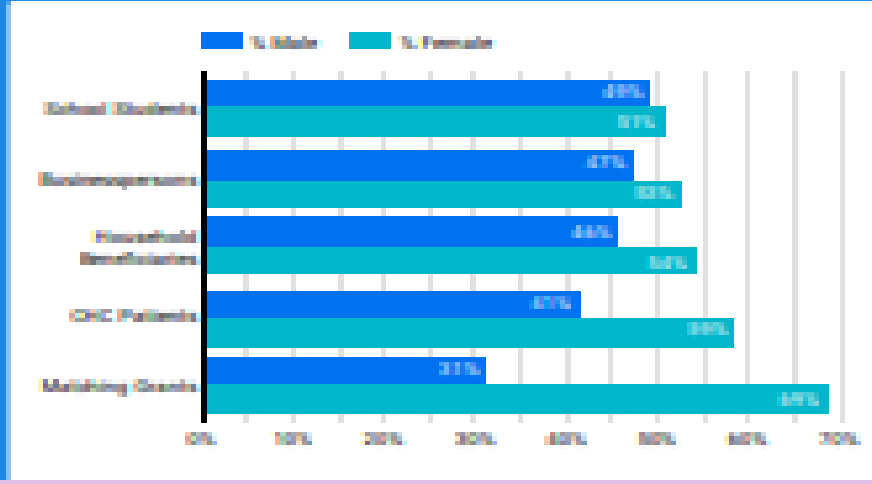
Unique Beneficiaries
289,882

Unique Female
159,298

Unique Male
130,584

Persons with Disabilities
3,930

Beneficiary Type	Unique Male	Unique Female	Unique Beneficiaries
Household Beneficiaries	68,211	69,211	137,422
CHC Patients	28,895	52,912	81,807
School Students	18,872	19,418	38,290
Businesspersons	17,223	19,214	36,437
Maternity Clinics	202	626	828





Type of Data Collected

- a) The type of data collected include energy generation capacity in megawatt, household access rate, electricity consumption, willingness to pay by households
- b) Technical Working Group is in place to validate all data received, processed and disseminated
- c) Limitations include: funding constraints to conduct regular willingness to pay surveys; there is need to acquire energy planning tools for the Ministry of Energy



Generation/Installed and Available Capacities

Station	Unit	Installed Capacity (MW)	Available Capacity (MW)	Conditions/Remarks
Bumbuna Hydro	1A	25	25	Good
	1B	25	25	Good
Guma Hydro	Unit 1	1.5	1.5	Good
	Unit 2	1.5	1.5	Good
	Unit 3	1.5	0	Out of Service
	Unit 4	1.5	0	Out of Service
Makalie Hydro		0.12	0.12	Good
Bankasoka Hydro		2.0	2.0	Good
Port Loko Diesel	Perkins	0.44	0.44	Not Operational
Charlotte Hydro		2.2	2.2	Good
Solar Park Freetown		6.0	0.0	Yet to be Commissioned
Kingtom HFO	Nigata 7	5.0	0	Major Maintenance required
	Nigata 8	5.0	0	Major Maintenance required
Blackhall Road HFO	Wartisla 1	8.2	0	Major Maintenance required-Reserve
	Wartisla	8.2	0	Major Maintenance required- Reserve



Generation/Installed and Available Capacities...

Bo-Diesel	Cat 1	1.28	0	Out of Service
	MTU 1	1.6	0	Broken down due to Turbo Charger
	MTU 2	3.0	1.2	Fair
	MTU 3	3.0	1.2	Fair
	GH Cat	1.6	1.4	Fair
	Cat 3	1	0	Cannibalized
Makeni-Diesel	Cat 1	1.28	0.0	Major Maintenance required
	Perkins 1	1.6	0.0	Out of Service
	Perkins 2	1.6	0.0	Out of Service
	Perkins GH	1.2	1.0	Fair
	Cat GH	1.6	1.3	Fair
Lungi Diesel	Man 1	2.0	1.8	Fair
	Man 2	2.0	0	Out of Service, Major maintenance required
	Man 3	2.0	0	Out of Service, Major maintenance required
	MTU 1	0.64	0	Out of Service, Major maintenance required
	MTU 2	0.64	0.5	Fair
	MTU 3	0.64	0.5	Fair



Generation/Installed and Available Capacities...

Lunsar Diesel	Perkins 1	1.06	0.0	Out of Service, Major maintenance required
	Perkins 2	0.45	0.4	Out of Service, Major maintenance required
Magburaka Diesel	Perkins 1	0.5	0.4	Fair
	Perkins 2	0.5	0.4	Fair
Kono Diesel	Man 1	3.00	0	Yet to be Commissioned
	Man 2	3.00	2.7	
	MTU 1	2.00	0.0	Out of Service, Major maintenance required
	MTU 2	2.00	2.0	Out of Service, Major maintenance required
Rented Car Power Ship		60	60	Supplying 20MW in the wet season & 60MW in the dry season
TOTAL		192.35	132.56	

NOTE: Sunbird Bioenergy (IPP) has a PPA with the Ministry of Energy for an installed capacity of 25 MW of which 12 MW should be supplied to the grid. No power evacuation for over a year now.

Tools used in the development of the national energy balance and indicators from statistics

- No system is available for this exercise currently, there is a need for technical support in this area

5) TOOLS USED IN THE DISSEMINATION OF STATISTICS TO THE PUBLIC

- a) The ministry has a website to disseminate the data and reports
- b) reports are monthly and annually prepared and disseminated
- c) there is a sector Working Group organized to regularly update stakeholders in the sector



STATUS ON ENERGY EFFICIENCY

- Energy Efficiency Policy (EEP) will focus on removing the obstacles that have constrained the promotion and implementation of energy efficiency and conservation measures.
- The policy measures required to achieve this goal comprise fiscal incentives, awareness creation, institutional and human resource capacity development, and financial intermediation.



MINISTRY OF ENERGY

Energy Efficiency Policy of Sierra Leone

MAY, 2016



National Energy Efficiency Action Plan (NEEAP)

REPUBLIC OF SIERRA LEONE

Period [2015-2020/2030]

Within the implementation of the
ECOWAS Energy Efficiency Policy (EEEP)

Date: 30th July, 2015

GOVERNMENT OF SIERRA LEONE



MINISTRY OF ENERGY

**IF YOU'RE
THE LAST
ONE OUT...**



**TURN
OFF THE LIGHTS**

CONSERVE ENERGY

GOVERNMENT OF SIERRA LEONE



MINISTRY OF ENERGY

CONSERVE ENERGY

Shut It

OFF

when not in use

AND SAVE MONEY



Initiatives taken by the Ministry– Impact on education:

Key Highlights

- ✓ School Electrification – Immediate Use of the power for BECE Exam revision classes under the Rural Renewable Energy Project:



Conakry D Junior Secondary School - RREP





Challenges to Energy EFF

- OLD NETWORK
- SUBSTANDARD MATERIALS USED FOR ELECTRICAL CONNECTIONS
- OVERBURDEN TRANSFORMERS
- OLD ELECTRICAL EQUIPMENTS
- HIGH VOLTAGE RATING APPLIANCES
- ENERGY CONSERVATION HABITS NOT INCULCATED



Thank you