



STATUS OF RURAL ELECTRIFICATION IN ZAMBIA

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Venue: Lusaka

**Presentation by
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Presentation outline

- ✓ Introduction
- ✓ Implementation of Rural Electrification Programme
- ✓ Status of Rural Electrification /Number of Projects Undertaken By REA
- ✓ Planned Projects for Rural Electrification
- ✓ Challenges of Rural Electrification
- ✓ Conclusion

Introduction



- ✓ The Government of the Republic of Zambia (GRZ), recognized the need to electrify rural areas in order to enhance development among the rural population.
- ✓ Due to the challenges of electrifying rural areas, GRZ established the Rural Electrification Authority (REA) and the Rural Electrification Fund (REF) through the Rural Electrification Act No. 20 of 2003.
- ✓ Since 2004, REA has been the Government Special Purpose Vehicle (SPV) for managing the required resources for the rural electrification programme.
- ✓ REA's primary aim is to provide electricity infrastructure to the rural areas using appropriate technologies in order to increase access to electricity in rural areas from 3.1% as at 2006 to 51% by the year 2030 as mandated by Government

Implementation of the Rural Electrification Programme



- ✓ REA commenced implementation of rural electrification projects in 2006.
- ✓ The Rural Electrification Master Plan (REMP) is the principal source of rural electrification projects.
- ✓ REMP identified 1,217 Rural Growth Centers (RGCs) throughout the country as targets for electrification during the period 2008 to 2030 using various technological options.
- ✓ A total amount of US\$1.1 billion (equivalent to US\$50million annually) is required for achieving REMP targets of increasing rural electricity access rate from 3.1% in 2006 to 51% by 2030.

Implementation of the R.E.P Conti...



- ✓ Currently the technologies being promoted for the rural electrification programme in Zambia include :-
 - Grid Extension
 - Mini hydro (from 200kW to 10MW) Development
 - Solar mini grids
 - Solar Home System Installations
 - Biomass and Biogas
 - Wind
- ✓ Since 2006, REA has implemented a number of rural electrification projects to supply electricity to rural communities.
- ✓ Currently the rural electricity access rate is at 4.4 % for grid power and 7.4 % for solar power (CSO 2015).

Status of Rural Electrification/Number of Projects undertaken by REA from 2006 to date by Province



No.	Province	Grid Extension Projects	Solar Projects	Number of Projects
1	Central	19	64	83
2	Copperbelt	14	76	90
3	Eastern	22	154	176
4	Luapula	19	95	114
5	Lusaka	6	41	47
6	Muchinga	7	58	65
7	North western	20	162	182
8	Northern	23	65	88
9	Southern	16	178	194
10	Western	16	128	144
	Total	162	1,021	1,183

Status of Rural Electrification/Number of Projects undertaken by REA from 2006 to date by Province



- ✓ During the period 2006 to 2015, a total of 3,524 households comprising 2,803 households at schools, 358 at Rural Health Centers (RHC's), 42 at Chief Palaces and 321 at other public facilities were electrified.
- ✓ Further, 3,853 private households comprising 813 households under the intensification programme in Chavuma, Mwansabombwe and Luangeni Projects, 430 households under the Mpanta Solar Mini-grid Projects as well as 2,610 households under the World Bank Increased Access to Electricity (IAES) Project electrified.

Planned Projects for Rural Electrification



- ✓ The Five Year Rolling Plan (FYRP) is a medium-term plan covering a period of five (5) years from 2017 to 2021.
- ✓ According to the FYRP, a total of **413 RGCS** are targeted to be implemented from 2017 to 2021 at a total cost of **K1,302,435,000.00** using various technologies which include GEPs, Solar Mini Grid, SHS, Mini Hydro and other renewables (Biomass and wind).
- ✓ The table below highlights a summary of projects to be implemented during the next five years

Summary of projects to be implemented from 2017 to 2021



No.	Province	Grid Extension Projects	Baseline (Planned)	Completed	Success Rate	GEPS under implementation by 2021	Solar Projects	Baseline (Planned)	Completed	Success Rate	Number of Projects	Projected Number of Direct Beneficiaries
1	Central	18	18	18	100%	0	14	14	14	100%	32	384
2	Copperbelt	19	19	19	100%	0	19	19	19	100%	38	456
3	Eastern	22	22	22	100%	0	18	18	18	100%	40	480
4	Luapula	24	24	24	100%	0	17	17	17	100%	41	492
5	Lusaka	29	29	29	100%	0	6	6	6	100%	35	420
6	Muchinga	22	22	22	100%	0	16	16	16	100%	38	456
7	North western	17	17	17	100%	0	18	18	18	100%	35	420
8	Northern	21	21	21	100%	0	9	9	9	100%	30	360
9	Southern	20	20	20	100%	0	18	18	18	100%	38	456
10	Western	46	46	46	100%	0	21	21	21	100%	67	804
Totals		238	238	238	100%	0	156	156	156	100%	394	4 728

Challenges of Rural electrification



- ✓ Inadequate Funding to the REF
- ✓ Initial Investment costs for Mini grids are high
- ✓ Low Private Sector Participation in rural electrification projects

Strategies for increasing Rural Electrification



The following are some of the strategies that REA is promoting in order to increase access to electricity:

- ✓ Implementing grid intensification projects
- ✓ Promoting renewable energy by implementing various renewable energy projects
- ✓ Conducting renewable energy sensitisation programmes on National TV
- ✓ Promoting Private Sector Participation through partnering with the private sector.



Conclusion

- ✓ REA still has a mammoth task of increasing access to electricity given the low electricity access rates of 4.4% for grid and 7.4% for solar.
- ✓ It is REA's hope that funding to REF will increase in order to meet the set targets in the REMP.
- ✓ Further, REA hopes that the Private Sector will come on board to participate and partner with REA in the rural electrification programme.