

2021 ANNUAL REPORT







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REA-Rural Electrification Authority, Zambia



GENERAL INFORMATION



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REA-Rural Electrification Authority, Zambia

STRATEGIC DIRECTION

The strategic direction of the Rural Electrification Authority (REA) was guided by the Strategic Plan 2019-2021 which was anchored on three (3) strategic themes namely operational excellence, collaboration excellence and rural electrification excellence.



VISION STATEMENT

"A provider of sustainable electrification for all rural communities"



MISSION STATEMENT

"To facilitate access to electricity in rural areas in order to contribute to enhanced living standards"



CORE VALUES

- a) Integrity
- b) Transparency
- c) Innovativeness
- d) Environmentalism
- e) Accountability
- f) Teamwork

STRATEGIC OBJECTIVES

REA's Strategic Objectives included:

- Strategic Objective 1: Improve Rural Electrification Service delivery;
- Strategic Objective 2: Improve collaboration with Stakeholders;
- Strategic Objective 3: Improve financial capacity and management;
- Strategic Objective 4: Improve operational processes and procedures; and
- Strategic Objective 5: Improve human capacity and administrative capacity.

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ACRONYMS

MoF	Ministry of Finance
MoU	Memorandum of Understanding
MP	Member of Parliament
NES	National Electrification Strategy
NGOCC	Non-Governmental Gender Organization for Coordinating Council
OG-RESS	Off-Grid Renewable Energy Smart Subsidy
PAP	Project Affected Persons
СР	Cooperating Partners
DBZ	Development Bank of Zambia
DNWPS	Department of National Parks and Wildlife Services
DOE	Department of Energy
EDF	European Development Fund
EDISON	Energy Data Information System for Off-Grid Networks
EE	Energy Efficiency
EIA	Environmental Impact Assessment
ERB	Energy Regulation Board
ESAP	Electricity Services Access Program
EU	European Union
GCF	Green Climate Fund
GEP	Grid Extension Projects
GIP	Grid Intensification Project
GRZ	Government of the Republic of Zambia
HT	High Tension of Minimum Voltage 11kv
HSHS	High-Powered Solar Home Systems
IAEREP	Increased Access to Electricity and Renewable Energy Production
ICT	Information and Communication Technology
KGRTC	Kafue Gorge Regional Training Centre
KMHPP	Kasanjiku Mini-Hydro Power Plant
kVA	Kilo-Volt Ampere
kWh	Kilo-Watt hour
kWp	Kilo-Watt Peak
LCC	Lusaka City Council
LCGSEP	Least Cost Geo-Spatial Electrification Plan
LV	Low Voltage of Minimum Voltage 0.4kv
MoE	Ministry of Energy

	Ministry of Finance
MoU I	Memorandum of Understanding
MP I	Member of Parliament
NES I	National Electrification Strategy
NGOCC I	Non-Governmental Gender Organization for Coordinating Council
OG-RESS	Off-Grid Renewable Energy Smart Subsidy
PAP I	Project Affected Persons
POM I	Project Operational Manual
PPP I	Public-Private Partnership
PSC I	Project Steering Committee
REA I	Rural Electrification Authority
REF I	Rural Electrification Fund
REMP I	Rural Electrification Master Plan
RGC I	Rural Growth Centre
RHC I	Rural Health Centre
SHS :	Solar Home Systems
SMG S	Solar Mini Grid
SMZ S	Standard Micro Grid Zambia
SPV :	Special Purpose Vehicle
SRB :	Smart Ready Board
US\$ I	United States Dollar
WB V	World Bank
WVZ	World Vision Zambia
ZAF Z	Zambia Air Force
ZCF Z	Zambia Cooperative Federation
ZEMA	Zambia Environmental Management Agency
ZLDC 2	Zambia Law Development Commission
ZNBC Z	Zambia National Broadcasting Corporation
ZPPA 2	Zambia Public Procurement Agency

GLOSSARY

Authority: An organization that has administrative power and control. In this report the Authority represents the Rural Electrification Authority. Catchment population: This is the estimated population of the area served by facility. e.g., Schools and other public facilities. Civil Structure: This can be defined as all structural engineering related to the built environment. Direct Beneficiaries: Direct beneficiaries can be defined as those who will participate directly in the project and thus benefit from its existence. E-kiosks: These are centres for electricity production and supply of energy services, generally located in rural or peri-urban zones. Electrical Network: This is an interconnected network for delivering electricity to consumers. Grid Densification: Expansion of existing distribution transformers. Grid Extension: A network expansion from the national power distribution system to new areas and communities that involves extension of the high tension (HT) by a length less than 5Km (G.I) Grid Intensification: Refers to the reduction of block size to reduce mean distance from all points to all others in a space network. High Tension Lines: Indirect Beneficiaries: Indirect Beneficiaries: Indirect beneficiaries can be defined as beneficiaries that are often, but not always, all those living within the zone of influence of the project. kWp: Unit of measure for peak power output used on a Solar System. Voltage that exceeds extra- low voltage and does not exceed 1000 volts alternating current (1000 V AC) or 1500 volts direct current (1500 V DC). Megawatt: A unit of power equal to one million watts. REF: Rural Electrication Master Plan		
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	REF:	Rural Electrication Fund
	REMP:	Rural Electrication Master Plan
RGC: Rural Growth Centre	RGC:	Rural Growth Centre
Special Purpose Vehicle: A subsidiary company formed for a specific business purpose.	Special Purpose Vehicle:	A subsidiary company formed for a specific business purpose.
Stakeholder: A party that has an interest or concern in REA and its business and can either affect or be affected by it.	Stakeholder:	
Strategic Objectives: These are statements that indicate what is critical to the Rural Electrification Authority's Strategic direction.	Strategic Objectives:	

STATEMENT BY THE BOARD CHAIRPERSON



n behalf of the Board of Directors of the Rural Electrification Authority (REA), and in accordance with Part V, Section 24 (1) of the Rural Electrification Authority Act No. 20 of 2003, I am pleased to submit this annual report for the year ending 31st December 2021.

During the year under review, REA continued to be impacted negatively, directly and indirectly, by the COVID-19 pandemic which affected its performance. Zambia's Tripartite Elections in August 2021 ushered in the New Dawn Government with aspirations to increase and diversify electricity generation, enhance energy efficiency, and accelerate accessibility to electricity for the rural areas. In addition, 31st December 2021 marked the expiry of REA's 2019-2021 Strategic Plan.

I am therefore delighted to account for 2021 activities as contained in this report, as it will serve as a benchmark for REA's performance for the subsequent years. REA's future

strategies and plans will be based on renewed strength, determination and a promise for an electrified and better Zambia.

Finally, I wish to appreciate and acknowledge the support received from the Government of the Republic of Zambia through the Ministry of Energy as well as from rural communities, cooperating partners, private sector enterprises, especially our contractors and consultants, and other stakeholders. I also wish to thank REA management and staff for their steady commitment in implementing the mandate of the Authority.

Drakar

Eng. Likonge B. Makai-Mulenga BOARD CHAIRPERSON

STATEMENT OF CHIEF EXECUTIVE OFFICER



I am pleased to present the progress made towards implementing REA's mandate during the year 2021. In line with the Rural Electrification Master Plan, the implementation of the Rural Electrification Programme in 2021 focused on the following key projects and activities:

- i. Grid Development;
- ii. Renewable Energy & Energy Efficiency; and
- iii. Partner funded projects and engagements.

During the year 2021, REA had planned to implement forty two (42) projects. The portfolio of projects had 32 Grid Development Projects (GDP) and ten (10) Renewable Energy Projects. Out of the 32 GDP, nine (9) were successfully completed. The remaining 23 GEP were at various stages of implementation. Under the Renewable Energy portfolio, the Authority commissioned the 640kW Kasaniiku Mini-Hydro Power Plant and three Solar projects

while six (6) Solar projects were still under implementation.

The Authority also continued with implementation of the Electricity Services Access Project (ESAP) and the Increased Access to Electricity and Renewable Energy Production (IAEREP) Projects which are funded by the World Bank (WB) and European Union (EU) respectively. The ESAP achieved a cumulative total number of 40,311 connections by year end out of a target of 38,296. This represented a percentage over-achievement of 5.3%. Under the IAEREP, the Authority completed hydro assessment studies which saw the earmarking of 14 sites with an aggregated capacity of 5,005kW for development. Further, the Authority undertook solar resource assessment which resulted into the identification of 18 sites with an aggregate connection potential of 4,347 kWp.

The Authority carried out support activities in line with the 2019-2021 Strategic Plan which included project monitoring and evaluation, social and environmental management, financial and economic analysis, audit and risk management, legal services, procurement of goods and services and community mobilisation. In addition, the Authority, produced a television programme, hosted a virtual Media Awards Programme, undertook Media Facility visits and media briefings to ensure that it remained visible to its stakeholders. Further, the Authority participated in the 2021 Luapula Water and Energy Exposition, Energy Week and the 2nd Environmental Protection Dialogue.

The implementation of the projects coupled with support activities resulted in the Authority recording an overall output performance achievement of 73%.

According to the REMP, the required resource envelope to achieve the target of 51% rural electrification by the year 2030 was estimated at US\$50 million per annum. However, over the past years, the Authority has only received an average of 21% of the required funds. In 2021, the Authority received K307 million which translates into about 32% of the REMP resource envelope for capital projects, but the operational budget remained stagnant over the years even when

RURAL ELECTRIFICATION AUTHORITY

the scope of implementation of the rural electrification had increased. This, coupled with an inadequate allocation towards operational costs, has hampered the progress required in successful implementation of REA's mandate.

Therefore, I wish to express my sincere gratitude to the REA Board of Directors for their continued guidance and support. I look forward to its continued support during the year 2022 and the subsequent years to come. I also wish to thank the REA Management and staff for their continued dedication, hard work and commitment.

Eng. Linus K. Chanda

CHIEF EXECUTIVE OFFICER

1.0 CORPORATE PROFILE

1.1 Mandate of Rural Electrification Authority

The overall mandate of the Rural Electrification Authority is to increase access to electricity in rural areas so as to contribute to improved productivity and quality of life of the rural population in Zambia.

1.2 Functions of REA

The specific functions of REA, as set out in Section 4(1) of the Rural Electrification Act No.20 of 2003, are to:

- (a) Administer and manage the Rural Electrification Fund;
- (b) Develop, implement and promote the utilisation of and update rural electrification master plans for systematic electrification of rural areas;
- (c) Promote the utilisation of available rural electrification technological options to enhance the contribution of energy to the development of agriculture, industry, mining and other economic activities in rural areas;
- (d) Mobilise funds from within and outside Zambia in support of rural electrification;
- (e) Offer, on a competitive basis, the construction of rural electrification projects and periodically publish information on programmes being carried out;
- (f) Design and offer, on a competitive basis, to developers and operators, smart subsidies for capital costs on projects that are designed to supply energy for development of rural areas;
- (g) In conjunction with stakeholders develop mechanisms for the operation of grid extension networks for rural electrification and other rural energy supply systems;
- (h) Finance project preparation studies for rural electrification projects in accordance with guidelines developed and approved by the Authority;
- (i) Recommend to Government policies for the enhancement of access to electricity by the rural populations; and
- (j) Undertake such other activities as are conducive or incidental to the performance of its functions under the Act.

2.0 GOVERNANCE STRUCTURE

2.1 BOARD OF DIRECTORS

The following Board of Directors were appointed by Honourable Minister of Energy, Eng. Peter Chibwe Kapala, MP on 15th December 2021 pursuant to Section 6 (1) of the Rural Electrification Act. No 20 of 2003.



Eng. Likonge. B. Makai- Mulenga
Board Chairperson



Mr. Bruce Jaani
Vice Board Chairperson



Ms. Nancy M. Mwamba

Member



Mr. Caeser Cheelo
Member



Mrs. Mazuba Mwambazi **Member**



Mr. Kayula Chimfwembe **Member**



Mr. Mafayo Ziba **Member**



Eng. Linus K. Chanda
Board Secretary

2.2 Roles of the Board of Directors

The roles of the Board are outlined below:

- i. Oversee the administration and management of the Rural Electrification Fund
- ii. Oversee development, implementation and updating of the Rural Electrification Master Plan
- iii. Oversee the promotion of the utilisation of available rural electrification technological options to enhance the contribution of energy to the development of agriculture, industry, mining and other economic activities in rural areas;
- iv. Approve the implementation of Annual Work Plan and Budgets; and
- v. Approve policies, strategies and Plans.

2.3 Board Committees

The Board Committees assist the Board of Directors in undertaking its functions. During the period under review, the Authority had three (3) Board Committees which included the following:

- i. Technical and Procurement Committee
- ii. Finance and Human Resources Committee; and
- iii. Audit and Risk Committee.

2.4 MANAGEMENT TEAM

Management is headed by a Chief Executive Officer (CEO) appointed under section 16(1) of the Rural Electrification Act No. 20 of 2003. The CEO oversees operations of the Authority on a day-to-day basis and is assisted by Directors and Managers.



Eng. Linus K. Chanda
Chief Executive Officer



Eng. Edmond Mkumba

Acting Director- Engineering
Services



Mr. Joseph Ntanda
Acting Director - Finance



Ms. Sandra Ndhlovu
Acting Director-Human
Resources & Administration



Mrs. Jacqueline Musonda
Director-Strategy &
Planning



Mr. Joseph Kenya Manager Audit and Risk



Mr. Sylvester Mphande Manager-Procurement



Mr. Justin Mukosa

Manager-Corporate Affairs



Mrs. Laura Malao-Daka Legal Counsel

3.0 REPORT ON 2021 ACTIVITIES

3.1 Overall Performance

The Annual Report provides a comprehensive account of the projects and activities undertaken by the Rural Electrification Authority (REA) for the period 1st January to 31st December 2021. The activities that were accomplished in the period under review were based on the approved 2021 Annual Work Plan and Budget whose activities were formulated using the Strategic Objectives as set out in the 2019-2021 Strategic Plan.

The Authority undertook a self-assessment of the implementation of activities under the 2019-2021 Strategic Plan and 2021 Work Plan and Budget. The self-assessment revealed that the Authority had achieved a performance rating of 72% and 73% under 2019-2021 Strategic Plan and 2021 Work Plan and Budget, respectively.

3.2 Grid Development Projects

3.2.1 Grid Electrification Projects

During the period under review, the Authority implemented a total number of 32 Grid Development Projects. The 32 projects

consisted of seven (7) Grid Extension Projects (GEP) and 25 Grid Intensification Projects (GIP). Further, the 32 projects consisted of eight (8) carry-over projects from previous years while 24 were new projects for the year 2021.

As at 31st December 2021, the Authority had completed a total of nine (9) Grid Development The completed projects Projects. implemented at a total cost of K44,043,099.29. Further, the completed projects resulted in the construction of a total of 293.36km High Tension (HT) lines and 53.94km of Low Voltage (LV) lines, connecting 3,465kVA from 37 transformers. The remaining 23 projects were at various stages of implementation by the end of the year. The delay in completion of the on-going was as a result of the late delivery of project materials to project sites. This situation was attributed to the continued COVID-19 pandemic which resulted into a global shut down thus delaying the shipment of goods and services within and from international markets. Table 1 below shows details of the completed Grid Development Projects.

Table 1: Completed Grid Extension Projects

No.	Project Name	Province	District	Total Contract Price (K)	Total Lengt (Kr	n)	Total No. of Transformer Installed	Total Capacity of Installed Transformers (Kva)
					HT	MV	motanea	rianoromiero (itta)
1	Mpanta	Luapula	Samfya	6,661,421.00	8.3	3.4	2	100
2	Shakeemba	Central	Shibuyunji	562,426.91	0.05	0.3	1	100
3	Jembo	Southern	Pemba	3,350,474.29	27	3.206	4	200
4	Mutono/ Chisheta/Mbaso	Luapula	Mwense	6,956,895.88	36.6	18.93	6	900
5	Luano	Central	Luano	5,496,175.15	65.6	5.97	6	400
6	Luembe	Eastern	Nyimba	4,272,151.99	37.5	5.2	2	150
7	Kalungu- Sansamwenqe	Muchinga	Isoka	7,253,434.12	56	9.19	10	665
8	Luswishi Farm block	Copperbelt	Lufwanyama	9,019,854.61	61.6	7.74	5	900
9	Kipushi	North- Western	Mushindamo	470,265.34	0.708	0	1	50
Total	<u> </u>			44,043,099.29	293.36	53.94	37	3,465

Table 2 below provides details on the beneficiaries of the projects completed in 2021. The Authority made a toatal of 836 initial collections and an additional 5,644 potential connections translating into 117,262 catchment beneficiary. The initial connections made in the project areas resulted in the electrification of public facilities which included 668 households, 35 schools, 12 Rural Health

Centres (RHC), 573 institutional staff houses, 223 business entities and four (4) Chiefs' palaces. .

Table 2: Beneficiary Details for GEP in 2021

NO.	PROJECT NAME	CATCHMENT POPULATION	INITIAL CONNECTIONS	POTENTIAL CONNECTIONS	HOUSEHOLDS	SCHOOL	RHC	CHIEF PALACE	BUSINESS ENTITIES	TOTALS
1	Mpanta	3,600	450	270	430	2	1	1	16	720
2	Shakeemba	1,500	30	690	28	0	0	0	2	750
3	Jembo	21,580	52	668	39	4	4	0	5	772
4	Mutono/ Chisheta/ Mbaso	4,194	49	671	32	2	1	1	13	769
5	Luana	35,390	7	713	0	5	1	0	22	748
6	Luembe	11,924	110	610	86	6	2	1	15	830
7	Kalungu- Sansamwenge	12,741	48	672	0	7	1	0	125	853
8	Luswishi Farm block	10,975	89	631	52	9	2	1	25	809
9	Kipushi	15,358	1	719	1	0	0	0	0	721
Tota	als	117,262	836	5,644	668	35	12	4	223	6,972

3.3 Off Grid Development Projects

3.3.1 Renewable Energy Projects

In its quest to contribute towards Government's efforts to increase access to electricity from renewable energy sources, the Authority had earmarked for implementation ten (10) Renewable Energy Projects during the period under review. The projects included seven (7) Solar Mini Grid projects, two (2) Solar Home System projects and one (1) mini-hydro project as follows:

a) Moyo Solar Mini Grid (SMG) Project (48.5kWp)

The Moyo SMG project is located in Pemba District of Southern Province. The project which is in Moyo Chiefdom involved the installation of a 48.5kWp power system to supply electricity to Moyo Mini Hospital, Moyo Primary School and the surrounding community. The completion of the project resulted in the electrification of one (1) hospital, one (1) school and 50 households.

b) Kampekete Solar Mini Grid Project (5kWp)

The Kampekete SMG project is located in Kampekete Village of Chongwe District of Lusaka Province. The project was a pilot project for utilizing excess power from the existing Solar Milling Plants (SMPs) that were implemented by Zambia Cooperative Federation (ZCF) around the Country. The Kampekete Solar Mini Grid

project involved the installation of a 5kWp power system and the construction of a Low Voltage (LV) distribution network to supply surrounding households, businesses, and a community school in Kampekete Village. The project was developed by REA who engaged Standard Micro Grid Zambia (SMZ) as a contractor to implement the project. The Zambia Cooperative Federation has since signed a Collaborative Agreement with SMG to authorize the latter to operate and maintain the Plant. The completed project resulted in the electrification of 70 facilities which included households, a public school and business entities in the project area.

c) Kabamba Solar Mini Grid Project (45kWp)

The Kabamba SMG project was implemented by the Ministry of Energy (MoE) in collaboration with Kafue Gorge Regional Training Centre and the REA. The project was funded by REA and KGRTC, with REA contributing 40% while KGRTC contributed 60% of the required funds for the project. The project involved the installation of a 45kWp power system to supply electricity to Kabamba Primary and Secondary Schools, Kabamba RHC, Local Court, Chief Kabamba's Palace and surrounding Community. As at 31st December 2021, all the public facilities were connected to the solar system. However, private households were earmarked for connection once the distribution network was extended and this was planned for the year 2022.

d) Ngabwe Solar Mini Grid (SMG) Project (57.8kWp)

The Ngabwe Solar Mini Grid Project is located in Ngabwe District of Central Province. The Project involved the construction of three (3) isolated Solar Micro Grids in three (3) load centres, namely, Mumeno with a capacity of 19.85kWp, Mukatamwene with a capacity of 9.95kWp and Ngabwe District Council Offices with a capacity of 28kWp. Mumeno and Mukatamwene SMG involved the utilization of excess power from the Zambia Cooperative Federation (ZCF) Solar Milling Plant and targeted to connect about 100 beneficiaries which include a school, a Rural Health Centre, households and business entities. On the other hand, the Ngabwe District Council SMG Project was a green-field Project which was targeted to supply electricity to Ngabwe District Council offices, Council Lodge and ten (10) staff houses.

During the period under review, installation of the power systems for both Mumeno and Mukatamwene were completed. However, power system installation works at the District Council Offices were under implementation and expected to be completed in 2022.

e) Chaba Solar Mini Grid Project (48.5kWp)

The Chaba SMG Project is located in Chilubi District of the Northern Province. The project involved the installation of a 48.5kWp power system to supply electricity to 847 potential customers which include a secondary school, primary school, a Rural Health Centre, households and business entities. The project was still under implementation at the end of 2021 and was expected to be completed in 2022.

f) Chunga Solar Mini Grid Project (200kWp)

The Chunga SMG project is located in Kafue National Park in Mumbwa District of Central Province. The project aims to provide electricity services to the Office Administration Block for Department of National Parks and Wildlife Services, Chunga Primary School, Chunga Rural Health Centre and associated institutional houses. The project was still under implementation at the end of the year.

g) Lunga Solar Mini Grid Project (300kWp)

The Lunga SMG project which is located on Kasomalunga Island involves the provision of electricity supply to schools, Rural Health Centre, local court, markets, businesses, churches and associated institutional staff houses. Once completed the project was expected to supply electricity to boost the existing economic activities such as farming and fishing in the project area which were currently on a micro scale. The project was still under implementation at the turn of the year.

h) High-powered Solar Home System Project

During the year 2021, the Authority introduced a 1.6kWp High-Powered Solar Home System (HSHS) to its electrification technologies. The Authority planned to pilot the technology by installing a total of 48 systems at selected Chief's palaces. The selection of beneficiaries was undertaken in liaison with the then Ministry of Chiefs and Traditional Affairs. The HSHS provides sufficient power for basic lighting, entertainment, water pumping and cooking using energy efficient appliance, the Electric Pressure Cooker (EPC).

As of 31st December 2021, the Authority had implemented and commissioned a total of four (4) HSHS solutions for Chief's palaces in Ngabwe District, Lunga District, Itezhi tezhi District, and Katete District. In addition, the tender for the supply and installation of the remaining 42 HSHS was in progress and planned to be implemented in 2022. The delay in the completion was attributed to delays in the tendering process.

3.4. Partner-funded Projects and Engagements

REA continued to collaborate with the World Bank (WB) and the European Union (EU) in implementing its mandate to increase access to electricity in rural areas. With support from the two (2) Cooperating Partners (CPs), REA implemented activities under the ESAP and IAEREP, respectively. The details for both the ESAP and IAEREP projects are outlined below:

3.4.1 Electricity Service Access Project (ESAP)

The Government of the Republic of Zambia, through REA implemented the ESAP which was aimed at increasing electricity access in targeted rural areas and assist in providing an enabling environment for accelerated national electricity access in Zambia. The Project was approved by the WB on 27th June 2017 with an implementation period of five (5) years, closing on 31st August 2022. However, due to delayed commencement of project implementation and the impact of COVID 19, the project closing date was extended to 31st August 2023.

The key institutional actors on the project included:

- Ministry of Energy through Department of Energy (DoE);
- ii. ZESCO Limited:
- iii. Rural Electrification Authority (REA);
- iv. Energy Regulation Board (ERB); and
- v. Development Bank of Zambia (DBZ).

The overall policy guidance and coordination of the Project was placed with the Project Steering Committee (PSC) while the fiduciary responsibility for the Project was vested in REA as the Implementing Agent. REA was also charged with the responsibility of reporting on the progress on the project as stipulated in the Project Operational Manual (POM), Project Agreement as well as the Financing Agreement.

The Project comprised of the following components:

- i. Subsidies for consumer connections and finance for network reinforcements and extensions for on-grid electrification;
- ii. Address existing challenges such as regulatory impediments for private sector participation in off-grid electrification, build the needed capacity at key institutions, and design and potentially pilot, financial mechanisms supporting private sector-led electrification through renewable energy mini-grids and standalone solar systems; and
- iii. Fund the development of a comprehensive National Electrification Strategy (NES).

a) On-Grid Electrification Program

The last-mile connection subsidy program commenced in September 2018 with an initial target of 23,000 connections over a period of five (5) years. In 2021, the project component had achieved a total number 40,311 connections out of a revised target of **38,296.** Of the **40,311** a total number of **39,992** were gender titled recorded connections. Of the **39,992, 34,438** were metered residential and **5,873** were metered commercial. Further, out of the 34,438 households 10,719 were female headed while 23,719 were male headed. Of the 5,873 metered commercials a total of 1,208 were female owned, while a total number of **4,655** were recorded as male headed and 10 were gender neutral.

As at 31st December 2021, the project had recorded a percentage achievement of 90% of its targeted connections. The target was benchmarked against the available funds, meaning connections would only end once the funds had been depleted. Table 3 shows the summary of the subsidy connections per province against the overall targeted connections.

Table 3: Summary of Subsidy Connections as of 31st December 2021

NO.	PROVINCE	TARGETED NUMBER CONNECTIONS	CONNECTIONS MADE	OUTSTANDING
1	Luapula	3,663	5,753	-2,090
2	Muchinga	5,941	6,687	-746
3	Northern	4,180	2,922	1,258
4	North-Western	4,489	1,489	3,000
5	Copperbelt	1,016	1,298	-282
6	Eastern	8,265	7,094	1,171
7	Western	1,322	2,776	-1,454
8	Southern	3,529	6,603	-3,074
9	Central	5,259	4,921	338
10	Lusaka	632	768	-136
Total		38,296	40,311	-2,015

As can be seen from Table 3, the highest number of connections were achieved in Eastern Province at 7,094 while the least number of connections were achieved in Lusaka Province at 786. The high connections experienced in Luapula, Muchinga, Western and Southern Provinces were attributed to the overwhelming response for connection. The low achieved connections of 1,489 against targeted of 4,489 in North-Western were due to the low turn out of applications to be connected to electricity. It is worth noting that sensitisation of the subsidy programme was undertaken across the Country.

The extension and strengthening of the grid network for new connections involved the construction of 33kV and 11kV distribution lines, installation of distribution transformers, and construction of low voltage (LV) distribution lines (400 and 230V) and testing low-cost technologies in nine (9) projects namely, Luapula, Eastern, Copperbelt, Southern, North-Western, Western, Northern, Central and Muchinga Projects. The implementation of projects had commenced following the signing of the contracts with the successful bidders. Table 4 highlights the successful contractors as of 31st December 2021.

Table 4: Details of Contracts Signed

NO.	PROVINCE	CONTRACTORS	CONTRACT SUM (US\$) - CIP
1	Central	Savenda Management Services Limited	619,197.60
2			794,661.29
3	Eastern	China State Construction Engineering Corporation Limited	1,317,081.40
4	Luapula	China State Construction Engineering Corporation Limited	1,830,300.83
5	Muchinga	Savenda Management Services Limited	849,784.28
6	Northern	Kailjee Construction Zambia Limited	965,631.55
7	North-Western	Sino hydro Corporation Limited	1,173,465.70
8	Southern	China State Construction Engineering Corporation Limited	692,294.54
9	Western	Sino hydro Corporation Limited	755,280.69
Total			8,997,697.88

b) Off-Grid Electricity Access Expansion-IDA

The implementation progress for Off-grid Component was delayed due to changes from the original concept of supporting the Public Private Partnership in Off-grid electrification to smart capital subsidy under output-based aid arrangement. During the period under review, the final

Request for Proposals was issued to the shortlisted applicants. The Request for Proposals closed on 10th December 2021. In addition, evaluations were successfully conducted and an evaluation report was presented to the REA Management Procurement Committee for approval. The actual implementation was planned to commence by June 2022.

The Off-Grid Rural Electrification Smart Subsidy Program (OG-RESS) Program was established and was split into four (4) different electricity service-provision categories in rural Zambia in line with funding lots in Table 5. These included provision of electricity services via:

- i. Solar Home Systems;
- ii. Solar mini/micro-grids;
- iii. Energy-Kiosks (Charging Stations); and
- iv. Hybrid combination of mini/micro-grid and energy-kiosk/charging station solutions.

Table 5: Funding Windows and Corresponding Funding Lots for OG-RESS

FUNDING WINDOW	LOT NO.	FUNDING ALLOCATION (US\$'000)	INDICATIVE INDIVIDUAL CONTRACT SIZE (US\$'000)	INDICATIVE NUMBER OF EXPECTED CONTRACTS	INDICATIVE SERVICE CONNECTIONS
SHS	Lot 1	Up to 500	200-500	1-3	8,000-10,000
Mini/ Micro-Grid	Lot 2	Up to 1,000	200-500	2-5	7,500-10,000
E-Kiosks	Lot 3	Up to 500	200-500	1-5	2,500-5,000
Hybrid	Lot 4	Up to 1,000	200-500	2-5	6,000-10,000
Productive Uses	Open	Up to 500	Open	TBD	TBD

c) Capacity Building and Project Implementation Support (SDR and Expected SIDA/GPOBA Trust Fund SDR

The Project component implemented various activities as outlined below below:

i. Development of the National Least Cost Geo Spatial Electrification Plan (LCGSEP)

The development of the National Least Cost Electrification Plan which was aimed at informing the sector on the least cost technology and associated costs of electrification. During the period under review, the Consultant conducted a simulation of the final scenario and presented the preliminary results to the Technical Working Group under Ministry of Energy. The consultant was expected to finalise the activity in 2022.

ii. National Electrification Strategy

The development of the National Electrification Strategy (NES) was undertaken by the Consultant, NRECA International. As at 31st December 2021, the Consultant had finalised the Inception Report and the Gap Analysis Report, which were approved by the Department of Energy. The Consultant was expected to conclude the NES development by 31st March 2022.

iii. Outreach and Consumer Awareness

During the period under review, the Public Service Announcements (PSA), and distribution of awareness materials which included brochures and posters were conducted in Central, Luapula, Northern and Muchinga Provinces. On the other hand, community engagements through sensitisation meetings were successfully conducted in six (6) districts of North-western Province; Kasempa, Mufumbwe, Manyinga, Kabompo, Zambezi and Chavuma, and in Luapula, Northern and Copperbelt Provinces. Campaign materials which included posters and T-shirts were also distributed in Central, Luapula, Northern and Copperbelt Provinces.

3.4.2 Increased Access to Electricity and Renewable Energy Production (IAEREP) Project

The GRZ and the EU signed a Financing Agreement (FA) on 28th November 2016 for the IAEREP Project. The FA provided the GRZ with a grant from the 11th European Development Fund of EUR €40 million. However, the FA was amended and signed on 7th February 2019 to extend the grant contracts by a year. This delayed the project to commence in 2020.

The overall objective of the project is to increase access to clean, reliable and affordable energy and promote renewable energy production and energy efficiency in Zambia. This was to be achieved through three (3) areas of action implemented in parallel:

- Support to public institutions to develop and/or revise the legal and regulatory framework for renewable energy and energy efficiency in Zambia;
- ii. Building capacity of both public and private organizations involved in the renewable energy sub sector in Zambia; and
- iii. Support to demonstration projects for renewable energy and energy efficiency in Zambia.

During the year under review, the project implemented three (3) Lots. The three (3) Lots included Lot 1: Demonstration project(s) in partnership with the private sector; Lot 2: Renewable-energy powered mini-grid demonstration projects with the private sector; and Lot 3: Energy efficiency demonstration projects.

i. Demonstration Projects in partnership with the Private Sector

A total sum of EUR €3 million, to develop demonstration projects which were a partnership between the private sector and the Authority. During the period under review,

Standard Microgrid Zambia (SMZ) an energy company was shortlisted as a developer to implement demonstration projects. As at 31st December 2021, the Authority and SMZ were yet to finalise the formulation of the financial model as well as conclude the Public Private Partnership (PPP) Agreement.

ii. Renewable Energy powered mini-grid demonstration projects with the Private Sector

A total sum of EUR €18 million was allocated to develop Renewable Energy Mini grid demonstration projects. A total of four (4) energy companies were selected through a competitive bidding process to implement projects. The selected companies included Powergen, Engie, Solar 23 and SMZ.

iii. Energy Efficiency (EE) demonstration projects

A total sum of EUR €4 million was allocated to implement Energy Efficiency (EE) demonstration projects. During the period under review, Lusaka City Council (LCC) was identified as the public entity to implement the project. The project involved energy efficient lighting for the use of street lighting around Lusaka. However, as at 31st December 2021, LCC and the European Development Fund was yet to sign the agreement as negotiations were still underway.

3.4.3 Feasibility Studies

During the year under review, the Authority continued to implement feasibility studies so as to identify potential project sites.

a) Wind Resource Assessment Study

Under this activity, the Authority had finalised the Lunga Wind Resource Assessment Study located in Kasomalunga District of Luapula Province. The study revealed that the minimum height for generation of power from the wind resource was at 80m. As at 31 December 2021, the assessment continued so as to validate the collected data.

b) Hydro Resource Assessment Study

The Authority had been given rights by MoE to undertake assesments in five (5) sites namely Mulembo (1.30MW) in Mkushi District, Piamanzi (2MW) in Nyimba District, Chipoma falls (1.54MW) in Chinsali District, Chimanga falls (2.73MW) in Mpulungu District and Kwata Kumateti falls (3.48MW) in Kaoma District.

During, the period under review, only Chipoma Falls in Chinsali District was selected for prefeasibility as the other sites had fallen short of the selection criteria for implementation under the IAEREP project. As such, the Authority undertook assessments for other potential sites earmarked for development under the IAEREP project. The Authority successfully identified 14 sites to be considered for pre-feasibility studies for Mini-hydro development as highlighted in Table 6. The pre-feasibility studies of Mini-hydro resource had a potential capacity of 5,005 kW.

Table 6: Identified Sites for Pre-Feasibility Studies

NO	NAME OF IDENTIFIED PROJECT SITE	DISTRICT	PROVINCE	POTENTIAL CA- PACITY (KW)
1	Pule Wa Luangwa	Mporokoso/Lunte	Northern	1,000
2	Pule Falls	Lunte	Northern	125
3	Insanya Falls	Mbala	Northern	100
4	Ngozye Falls	Mpulungu	Northern	75
5	Kaezya Falls	Mpulungu	Northern	100
6	Nyinaluzi	Senga Hill	Northern	100
7	Chipoma	Chinsali	Muchinga	1,500
8	Mutanda Falls	Solwezi	North-Western	200
9	Mujila Falls Upper	Mwinilunga	North-Western	950
10	Kapunda Falls	Mwinilunga	North-Western	50
11	Lwawu Mission MHP	Mwinilunga	North-Western	50
12	Nyangombe Mission MHP	Mwinilunga	North-Western	75
13	Nyambwezu Falls	Mwinilunga	North-Western	80
14	Chauka Matambo Falls	Mwinilunga	North-Western	600
Total				5,005

c) Solar Resource Assessment Study

Under this activity, the Authority undertook reconnaissance studies for both potential SMG and SHS Projects in Central, Northern, Southern and North-western Provinces. The Authority successfully identified a total number of 18 sites to be considered for possible development using either SMGs or SHS. The sites would be advertised for potential development by way of either donor aid or PPP. The details of the sites are highlighted in Table 7:

Table 7: Reconnaissance Studies Undertaken In 2021

NO	PROJECT NAME	DISTRICT	PROVINCE	POTENTIAL NUMBER OF BENEFICIARIES	PROPOSED ELECTRIFICATION METHOD
1	Mulungwe	Mkushi	Central	100	Solar Mini Grid
2	Chibanga	Mkushi	Central	100	Solar Mini Grid
3	Chingombe	Mkushi	Central	240	Solar Mini Grid
4	Muswishi	Mkushi	Central	80	Solar Home Systems
5	Katetaula	Mkushi	Central	100	Solar Home Systems
6	Lifwambula	Chisamba	Central	200	Solar Mini Grid
7	Kapolyo	Mungwi	Northern	340	Solar Mini Grid
8	Mumba	Mungwi	Northern	234	Solar Mini Grid
9	Mulema-Sampa	Mungwi	Northern	360	Solar Mini Grid
10	Vundoka	Senga Hill	Northern	63	Solar Mini Grid
11	Sikaunzwe	Kazungula	Southern	66	Solar Mini Grid
12	Simwatachela	Zimba	Southern	376	Solar Mini Grid
13	Kanyanga	Zimba	Southern	65	Solar Mini Grid
14	Lubofu	Kasempa	North-western	210	Solar Mini Grid
15	Chifuwe	Manyinga	North-western	378	Solar Mini Grid
16	Kabipupu	Mufumbwe	North-western	204	Solar Mini Grid
17	Mpidi	Zambezi	North-western	860	Solar Mini Grid
18	Kalolwa	Manyinga	North-western	371	Solar Mini Grid
Total				4,347	

3.5 Other Partnership Projects

The Authority continued to promote increased electricity uptake and productive uses of electricity in rural areas through synergies stakeholders. identified with other The Authority continued with the implementation of collaborative activities with its strategic partners, who included World Vision Zambia Citizen (WVZ). Economic **Empowerment** Commission (CEEC) and the Non-Governmental Gender Organization Coordinating Council (NGOCC).

Under this activity, the Authority operationalised the Memorandum of Understanding (MoU) with WVZ. The outcome of this MoU was the completion of the electrification of the Moyo Hospital in Pemba District of Southern Province. Under the MoU between REA and NGOCC, the anticipated outcome was the installation of High-Powered Solar Systems at Nkolongozya Women group in Southern Province. The project

was planned to be implemented in 2022. The project involved the installation of three (3) High-Powered Solar Home Systems (HSHS) at the Cooperative business Centre, Siamwavwa Primary School, and the associated staff houses.

Further, a total number of 100x10Wp SHS were earmarked for distribution and were expected to benefit Cooperative members in the surrounding community. While REA was responsible for the power systems, NGOCC was responsible for the drilling of a borehole in the beneficiary project area. As of 31st December 2021, NGOCC had drilled the borehole while REA had launched the tender for the supply and installation of the SHS.

The finalisation of Implementation Plans with CEEC had stalled due to COVID 19 restrictions and budgetary constraints by CEEC. The Authority plans to re-engage CEEC so as to commence the operationalization of the MoU during the year 2022.

3.6 Environment Compliance and Community Engagements

3.6.1. Environmental Management

(a) Environmental Impact Assessments

TThe Authority undertakes Environmental Impact Assessments in order to identify both negative and positive impacts of REA projects. This process also proposes mitigation measures against negative impacts and enhancement measures for positive impacts. The activity is undertaken in line with the requirement under the Environmental Management Act No.12 of 2011. It is mandatory for project developers to undertake the EIA process for every developmental project with the view of acquiring Environmental clearances before project implementation commences. This is in order to ensure that projects are sustainable in the long run. During the period under review, the Authority undertook 28 environmental impact assessments as outlined in Figure I.

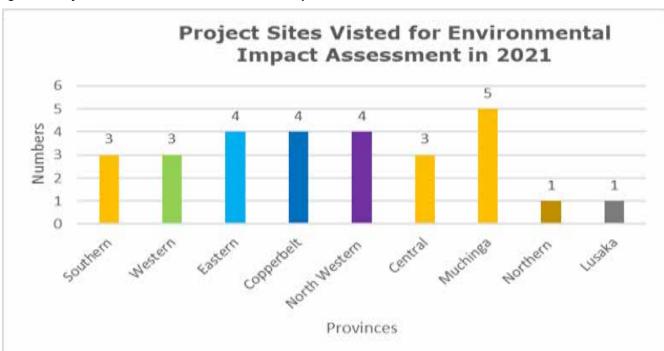


Figure 1: Project Sites Visited for Environmental Impact Assessment in 2021

(b) Environmental Compliance Monitoring

The Authority also undertakes environmental compliance monitoring so as to ensure that compliance towards set environmental standards is achieved. During the period, the Authority successfully undertook 15 environmental compliance monitoring activities in the year 2021. The project sites at which environmental compliance monitoring was undertaken are highlighted in Table 8.

Table 8: Environmental Compliance Monitoring

No.	Project Name	Province	District	Type of Project				
		GRID EXTENSION	PROJECTS					
1	Salamano	Copperbelt	Kitwe	GEP				
2	Mutenda-Muchinshi	Copperbelt	Chingola	GEP				
3	Min'gomba	Copperbelt	Chililabombwe	GEP				
4	Kanongesha	North-Western	Mwinilunga	GEP				
5	Kanyama	North Western	Mwinilunga	GEP				
6	Kalumbila-Shineng'ene	North Western	Mwinilunga	GEP				
7	Kasanjiku Lot 1,2 and 3	North Western	Mwinilunga	GEP				
8	Matunga	Eastern	Katete	GEP				
9	James	Eastern	Nyimba	GEP				
10	Ndewe-Simambumbu	Eastern	Petauke	GEP				
11	Zuze	Eastern	Petauke	GEP				
12	Kantengwa	Southern	Namwala	GEP				
13	Chipepo	Southern	Gwembe	GEP				
REN	RENEWABLE ENERGY PROJECTS							
14	Моуо	Southern	Pemba	Solar				
15	Kampekete	Lusaka	Chongwe	Solar				

a) Wayleave Acquisitions

The Authority undertakes wayleave acquisition so as to obtain consent from Project Affected Persons (PAPs) and to avoid future claims of compensation. During the year 2021, wayleave acquisition exercises were undertaken for 28 project areas. Further, the Authority undertook similar exercises for 13 sites for Standard Microgrid under the EU IAEREP project.

b) Environmental Operational Licences

The Authority made an application to the ZEMA for Environmental Operational Licences for KMHPP and the licenses have since been issued to the Authority with a validity of three (3) years up to 2024. The Licenses that were acquired include Hazardous Waste Management Licence which relates to the generation & storage of hazardous waste, Emission License which relates to the discharge of pollutants into the environment, Pesticides and Toxic Substances licence which relates to the storage of pesticides and toxic substances.

c) Battery Disposal

In order to manage the environment, disposal of harmful substances should be undertaken

in a controlled manner so as to avoid pollution to the environment. During the period under review, the Authority managed to dispose of 44 expired lead acid batteries from its Chongwe Warehouse and Server room. The disposal certificate for the disposal of the batteries was issued to the Authority by the ZEMA.

d) Tree Planting Exercise

The Rural Electrification Authority in liaison with the Forestry Department undertook a Tree Planting Exercise in which 2,500 indigenous trees were planted. The trees were planted on approximately three and half hectors (3.5h) of land at the source of the Chambeshi River in Kantalawa village of Mbala District. The trees that were planted included Afzelia quanzensis (Mupapa) and Senna Siamea (Yellow Cassia). The activity was undertaken in order to replenish on vegetation that REA had been cutting during project implementation and also to protect the source of one key river body that also feeds into other surrounding countries. The trees would also enhance natural carbon sequestration thereby contributing to reducing the effects of Climate Change. Figure 2 shows the proceedings of the tree planting exercise in Mbala District of Northern Province.

The Sural Electrification Authority has concluded a Tree Planting Programme where 2500 seedlings work planted at the source of the Chambeshing River.

The exercise was held under the Tieme-Planting Trees; A pathway to a Green Economy.

The Tree planting exercise was graced by Northen Province Deputy Permanent Secretary Mr. Sineya Kambenja. Also in attendance was the District Commissioner for Mbala Mrs. Annie Paul.

Rural Electrification Authority

Rural Electrification Authority has concluded a Tree Planting Programme where 2500 seedlings work planted at the source of the Chambeshi River.

The Tree planting exercise was graced by Northen Province Deputy Permanent Secretary Mr. Sineya Kambenja. Also in attendance was the District Commissioner for Mbala Mrs. Annie Paul.

Figure 2: Tree Planting Exercise in Mbala District of Northern Province

3.7. Monitoring and Evaluation

(a) Project Monitoring

Project monitoring allows for routine tracking of project implementation in order to facilitate for evidence-based decision making by Management and ensure effective and efficient delivery of projects. During the period under review, the Authority undertook 11 field monitoring visits to GEP that were under implementation. The project field visits were a routine activity to track the progress achieved as well as document challenges faced in the implementation of rural electrification projects. The 11 projects visited include; Kasanjiku Lot 1, Kasanjiku Lot 2, Kasanjiku Lot 3, Keembe, Ming'omba, Luswishi, Makululu, Muchinshi/Mutenda, James, Zuze, Ndewe/Simambumbu, Matunga; and Chipepo. Figure 3 shows Chipepo GIP in Gwembe District of Southern Province.





(b) Socio-Economic Baseline Survey

The Authority undertakes Socio-Economic Baseline surveys to document profiles of project areas before project implementation as well as develop a benchmark for monitoring progress and evaluating impact after the implementation of the project. During the year 2021, the Authority undertook 29 baseline surveys which included 26 Grid development projects and three (3) Solar Projects. The 26 Grid development projects included Kasanjiku Phase - Lot 1, Kasanjiku Phase - Lot 2, Kasanjiku Phase - Lot 3, Salamano, Muchinshi/Mutenda, Shinengene - Northern Resettlement, Matunga, Ndewe-Simambumbu, Kopa, Mufubushi, Kanongesha, Kanyama, Ming'omba, Katongo-Chilolwa, Bulaimu Kantengwa, James, Zuze, Chipepo, Shamilimo/Munyati, Chisuta, Lupani, Kaputi, Shakeemba, Keembe and Ngabwe in North-western, Copperbelt, Eastern, Muchinga, Southern and Central Provinces. The Solar projects were Kampekete Solar Milling Plants (SMP), Ngabwe Solar Mini Grid and Chilubi Mainland Mini Grid in Lusaka, Central and Northern, Provinces.

(c) End of Project Evaluation

REA conducts end of project Evaluation surveys after the completion of each project with the focus to assess both outputs and intermediate outcomes. This activity is aimed at examining the effectiveness and efficiency of the process used in implementing the projects. The Authority undertook end of project evaluations on eight (8) GEP as listed in Table 9.

Table 9: Project Sites Visited for end of Project Evaluations in 2021

NO.	NAME OF PROJ- ECT	PROVINCE	DISTRICT	TYPE OF TECHNOLOGY	COMPLETION DATE
1.	Nangweshi	Western	Sioma	Grid Extension	23 rd December 2020
2.	Mwenzo Nawait- wika	Muchinga	Nakonde	Grid Extension	31 st December 2020
3.	Kasanjiku	North-Western	Mwinilunga	Mini hydro Power Plant	20 th December 2020
4.	Shamilimo Munyati	Shibuyunji	Central	Grid Extension	28 th August 2020
5.	Shakeemba	Central	Shibuyunji	Grid Extension	23 rd July 2021
6.	Lupani	Central	Chibombo	Grid Extension	20 th July 2020
7.	Shemu	Muchinga	Nakonde	Grid Extension	23 rd September 2020
8.	Luswishi	Lufwanyama	Lufwanyama	Grid Extension	31 st July 2021

(d) 2020 Annual Strategic Performance and 2021 Quarterly Reviews for REA

The Authority undertakes Strategic performance reviews so as to assess performance with respect to the implementation of the REMP, Strategic Plan and Annual Work Plans and Budgets. During the period under review, the Authority undertook the 2020 Annual and 2021 Quarterly Strategic Performance Reviews. As of 31st December 2021, REA held four (4) strategic performance review meetings which included the 2020 Annual Strategic Performance Review meeting held on 29th January 2021, 1st Quarter Strategic Performance Review meeting held on 23rd April 2021, 2nd Quarter Strategic Performance Review Meeting held on 13th July and 3rd Quarter Strategic Performance Review meeting held on 12th October 2021. The 2021 annual strategic performance review revealed that the Authority achieved 42%, 72% and 73% with respect to the implementation of the REMP, Strategic Plan 2019-2021 and approved 2021 Work Plan and Budget.

3.8. Resource Mobilisation Engagements

(a) Resource Mobilisation Activities

During the period under review, the Authority developed the draft Resource Mobilization Strategy, a document that would guide the solicitation and mobilization of funds for rural electrification activities. The strategy was earmarked for finalization in the year 2022 upon the development and launch of a Successor Strategic Plan for the period 2022-2026.

The Authority also developed a Concept Note in response to a call for proposals by the Global Climate Fund (GCF) to develop Renewable Energy projects. Under this call for proposals, the Authority packaged a Concept Note that would result in the implementation of 24 Solar Mini-grid projects around the Country. The Concept was submitted to United Nations Industrial Development Organization (UNIDO), an Accredited Entity (AE) to GCF, for subsequent submission to GCF on behalf of REA. Once approved, a feasibility study would be undertaken in readiness for a full proposal development.

In addition, the year 2021 saw REA and Loughborough University Grant sign а Disbursement Agreement amounting £210,000 for a duration of one (1) year four (4) months. The grant was earmarked to fund the implementation of a project titled "Designing Prototyping and Commercialization a Smart Ready Board for Rural Application". It was envisaged that once the project was completed the Authority would have developed and deployed 600 Smart Ready Boards (SRB) and 600 Electric Pressure Cookers (EPC) with the aim of promoting interoperability and inclusivity in the Rural Electrification Programme. However, the latter was not achieved despite the grant agreement being effected as the University withdraw their support towards the Project due to the University's financial partners withdrawing financial support. This situation was necessitated by the uncertainty that the COVID-19 pandemic presented within the business environment around the Country.

However, this project would be implemented in phases under REA Budget.

(b) Review and Production of Policies & Procedure Manuals

In its quest to ensure that activities undertaken by the Authority are aligned to industry-best practice, the Authority reviews and formulates various policies and procedures manuals. During the period under review, the documents that were updated or formulated were as follows:

i. Donor Coordination Framework

The Authority updated the Donor Coordination Framework and continued to disseminate the document through the REA Website. The Donor Coordination Framework is an operational strategy designed to coordinate donor activities with regards to Rural Electrification Programme in Zambia. A soft copy was uploaded on the REA website www.rea.org.zm.

ii. Framework for Managing Capital Subsidies

The Framework for Managing Capital Subsidies which was developed by the Authority and approved by the Board in June 2020 was printed and disseminated in 2021. The document is aimed at providing guidelines to the Authority on how to administer and manage subsidies for capital costs. The document was printed and disseminated for internal use.

iii. Operational Manual: Guidelines for Financing Rural Electrification Projects

The Authority reviewed the Operational Manual: Guidelines for Financing Rural Electrification Projects taking into account changes that have taken place since its development in 2009. The document outline guidelines with regards to financing of Rural Electrification Projects. The approved document was uploaded on the REA website www.rea.org.zm.

iv. Matching Grant Funding Scheme

The Authority implemented the matching Grant Funding Scheme an initiative that is aimed at increasing connection to electricity by Small to Medium Enterprises (SME's). During the period under review, REA connected 4,208 Small to Medium Enterprises (SME's) in selected parts of Zambia through the ESAP project.

3.8.1 Community Mobilisation Activities

In the year 2021, the Authority continued implementing Community Mobilisation Activities for both on-grid and off-grid projects in order to enhance community support and participation in the rural electrification programme A total of three (3) sensitisation and education activities were undertaken in off-grid project areas namely; Moyo, Chaba and Chishi Solar Mini-grid projects. Further, a total of 24 sensitisation activities were undertaken in various on-grid project areas across the country. In addition, the Authority also undertook resensitisation and monitoring of Community Mobilization activities on both on-grid and offgrid activities. A total of nine (9) re-sensitisation and monitoring of community mobilization activities were undertaken in the year under review. The nine (9) activities included four (4) off-grid sites and five (5) on-grid sites which included; Kampekete, Chunga, Lunga and Ngabwe Solar Mini-Grid Project areas as well as Mpanta, Keembe, Shakeemba, Shamilimo and Kaputi on-grid project areas.

3.9. Corporate Affairs

3.9.1. Information and Communication Technology (ICT)

The Authority initiated several ICT projects that were aimed at improving operational efficiency in the implementation of the Rural Electrification Programme. The projects included the following:

a) Business Information System (BIS)

During the period under review, the Authority finalised the identification exercise of the requirements for the BIS. Further a procurement process was initiated. Once the BIS system is operationalised, the Authority would accrue the following benefits among others:

 Improved reporting through the provision of real-time data and single source of information;

- ii. Standardised business processes which would result in reduced operational costs, improved collaboration and work flows; and
- iii. Improved customer services in the delivery of rural electrification services.

b) Payment Digitization Project for Kasanjiku Mini-hydro Power Plant

During the period under review, the Authority received Technical Assistance through the Ministry of Energy (MoE) from the United Nation Capital Development Fund (UNCDF) which was aimed at enabling the customers in Kasanjiku to purchase electricity units using mobile money. As at 31st December 2021, a scoping exercise had been undertaken and the Site was found to be suitable for the project. Further, a mobile payment integrator had been identified and the contract between the integrator and the UNCDF was yet to be signed.

c) Website Enhancement

The Authority continued with efforts to improve stakeholder collaboration. In the year under review, the Authority initiated a project to enhance its website (www.rea.org.zm) to make it more interactive with the contractors. The website enhancement was completed.

d) Energy Data Information System for Off-Grid Networks (EDISON)

REA established a relationship with Renewable Energy and Energy Efficiency Partnership (REEEP) on the development of EDISON cloud platform for enhanced data collection and monitoring of off-grid system networks. As at 31st December 2021, the pilot site was being developed based on the Kampekete Solar Milling Plant. Once implemented the project would enable REA to monitor, verify and manage data on the operation of off-grid networks which would contribute to informed management decision making.

3.9.2 Stakeholder Awareness and Participation

In its bid to promote stakeholder awareness and participation, the Authority undertook a comprehensive awareness campaign which enhanced support for the rural electrification programme, promoted public participation and maintained a positive corporate image.

Some of the key programmes that were undertaken to promote stakeholder awareness and participation during the period under review included:

a) Media Programmes

- i. Television Programme: A total of 24 vines were produced. The vines highlighted selected projects and their impact on the project beneficiaries. The program commenced airing weekly on Zambia National Broadcasting Corporation (ZNBC) TV1 from the 25th of October 2021. The programme was scheduled to end on 11th April 2022.
- ii. Media Award Programme: The Authority hosted a virtual 2020 REA Media Awards program to recognize efforts by Journalists and Media Houses in promoting rural electrification programmes. Further, the Authority commissioned the publicity program for the 2021 REA Media Awards through various platforms with included Newspaper adverts, Facebook and WhatsApp groups.
- **iii. Media Facility Visits:** This programme was part of a media strategy of providing media personnel with an opportunity to visit

project areas to heighten levels of publicity on the Authority's efforts to electrify rural areas in Zambia. The undertook all two (2) media facility visits. The first visit was undertaken to the ESAP project areas in Central, Northern and Muchinga provinces and the second media facility visit was undertaken to REA projects in North-Western and Southern provinces.

iv. Media Briefings: The Authority held three (3) press engagements namely the launch of the off-grid publicity and information strategy, handover of feasibility tools by IAEREP and deployment of EDISON software in project management.

b) Project Commissioning

During the period under review, the Authority commissioned three (3) projects namely high-powered Solar Home System in Chief Mukabwe's area in Ngabwe District Central Province, the Kabamba Solar Mini grid in Kabamba Chiefdom in Serenje District in Central Province and Moyo Solar Mini Grid and Jembo Grid Extension in Pemba District of Southern Province.

The commissioning ceremony for the high-powered Solar Home Sy stem was officiated by Special Assistant to the President for Projects, Implementation and Monitoring. The other three (3) projects were all graced by Honourable Minister of Energy, Peter Chibwe Kapala MP. Figure 6 shows the Honourable Minister of Energy, Eng. Peter Chibwe Kapala Commissioning the Moyo Solar Mini Grid in Southern Province.

Figure 6: Honorable Minister, Peter Chibwe Kapala Minister Of Energy Commissioning the Moyo Solar Mini Grid



c) Roadshows

During the period under review, the Authority conducted three (3) roadshows in Kabamba Community, Moyo and Jembo. The roadshows were used to publicise rural electrification programmes.

d) Facility Visits by the REA Board of Directors

The Authority undertook three (3) facility visits with the Board of Directors to selected projects in North-Western, Southern, Northern and Luapula provinces. The major objective of these facility visits was to familiarize the Board Members on project implementation.

e) Maintain Active Digital Platforms

In a quest to enhance the institutions visibility as well as avail real time information the Authority was maintaining two (2) major digital platforms namely the Official Website as well as the Official Facebook page. During the period under review the Authority posted an average of 12 stories on the Official website and 160 posts on Facebook.

f) Corporate Identity Manual

During the year under review, the Board approved the REA Corporate Identity Manual. The Manual was expected to provide brand guidelines that would direct internal and external users on elements of the institutional brand. Further, the document was a guide for implementation of the REA brand to its stakeholders and would play a key role in building a strong visual identity and value association in the marketplace of public opinion for the brand. The full operationalisation of the brand would commence in 2022 alongside the development and launch of the 2022-2026 Strategic Plan.

g) Information and Corporate Promotional Material

The Authority printed 300 copies of the 2020 Annual Report and submitted 250 copies to National Assembly of Zambia as per Government policy requirement. In addition, 4,000 quarterly newsletters, 1,000 Corporate

Calendars, 500 Lapel pins, 1,000 face masks, 100 water bottles, 200 notepads, 200 umbrellas and 200 key holders were produced by REA.

h) Corporate Social Responsibility (CSR)

In line with the policies, approaches and actions that Government, through the Ministry of Health, put in place as responses to the COVID-19 pandemic, the Authority instituted measures to help prevent the propagation of the disease in various on-going project areas in the country. The Authority, through its Corporate Social Responsibility policy, activated activity to respond to the pandemic. The activity involved the provision of COVID-19 prevention materials to Rural Health Centres located in the project areas. These standard measures did not only contribute to safeguarding the health of project workers, local institutional staff members as well as general members of communities but also played a critical role in sustaining continued implementation of projects.

i) Participation in Exhibitions

The aim of this activity was to enable the Authority to promote its image at some of Zambia's premier annual exhibitions that attract a variety of stakeholders both from the private and public sectors. During the period under review, the Authority participated at the events outlined below:

- Luapula Water and Energy Expo which was held in Samfya District from 7th to 12th May 2021;
- ii. Energy week was held in Lusaka from 4th to 8th October 2021; and
- iii. Second Environmental Protection Dialogue 14th to 15th October 2021.

The other planned exhibition and exposition were put halted due to the Covid-19 restrictions.

j) Communication Policy

During the year 2021, the Authority revised Communication Policy in line with the 2019-2021 Strategic Plan.

3.10. Human Resources and Administration

(a) Establishment

The Authority had a total staff establishment of 91 positions on long-term contracts out of which 67 positions were filled. The Authority was unable to fill the remaining positions due to budgetary constraints. In its quest to bridge the human resourcing gap, the Authority engaged short-term staff to cushion the staff complement deficit. During the period under review, the Authority had engaged staff in the following categories:

- 1. Staff on long-term contracts and were based at Head Office (67)
- 2. Staff on short-term contract at Head Office and Kasanjiku (49)

Table 10 and 11 below outlines staff engaged by Departments/Units on long- and short-term contract tenure, while table 12 and 13 depicts employees under Kasanjiku Mini Hydro Power Plant and ESAP.

TABLE 10: Long-Term Contract Staff

NO	NAME OF DEPARTMENT/UNIT	NUMBER OF LONG- TERM STAFF	APPROVED ESTABLISHMENT	VARIANCE
1	CEO's Office	2	2	0
2	Engineering Services	16	28	12
3	Strategy & Planning	9	18	9
4	Human Resources & Administration	13	14	1
5	Finance	13	14	1
6	Procurement	5	6	1
7	Corporate Affairs	3	3	0
8	Audit and Risk	4	4	0
9	Legal	2	2	0
TOTAL		67	91	24

Table 11: Short-term Contract Staff

NO	NAME OF DEPARTMENT/UNIT	NUMBER OF SHORT-TERM STAFF
1	CEO's Office	0
2	Engineering Services	19
3	Strategy & Planning	6
4	Human Resources & Administration	16
5	Finance	4
6	Procurement	1
7	Corporate Affairs	2
8	Audit and Risk	1
9	Legal	0
TOTAL		49

Table 12: Contract Staff Engaged at Kasanjiku

NO	NAME OF DEPARTMENT/UNIT	NUMBER OF STAFF
1	Plant Supervisor	1
2	Plant Operators	3
3	Linesman	1
TOTAL		5

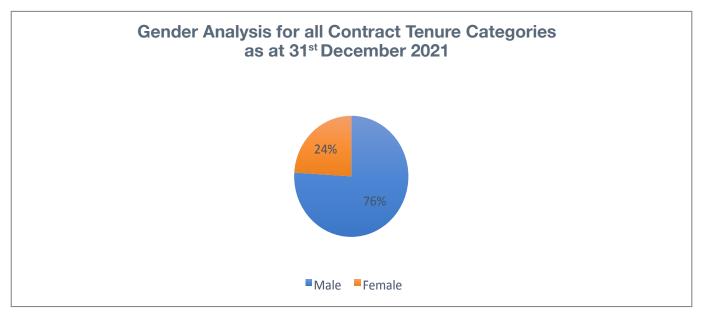
Table 13: Contract Staff under ESAP

NO	NAME OF DEPARTMENT/UNIT	NUMBER OF STAFF	
1	Electricity Services Access Project (ESAP)	13	
TOTAL		13	

b) Employees by Gender

REA is an equal opportunity employer and works towards achieving gender equality. During the year under review, the Authority continued to strive towards reaching a gender balance amongst its employees. Thus, in the year 2021, the Authority had 102 (76%) male and 32 (24%) female employees across all contract tenures as depicted in Figure 4:

Figure 4: Employee by Gender



c) Capacity Building

During the year under review, the Authority planned to train 40 members of staff out of which ten (10) were targeted for foreign training and 30 for local training. However, only four (4) members of staff attended foreign training, one (1) member of staff undertook local training and the other 34 members of staff underwent induction.

Due to the COVID-19 pandemic, Zambia and other countries sanctioned a travel ban. In this regard, the Authority suspended most of the foreign training until the travel ban was lifted. Thus, only four (4) foreign training were conducted on Protection and Management of Electricity Infrastructure and Prevention of Corruption in projects. Further, one (1) local training was conducted on Cyber Security operations. Table 14 highlights both local and foreign trainings undertaken in the 2021.

Table 14: Local and Foreign Trainings Undertaken in the Year 2021

NO.	NAME OF COURSE	TYPE OF TRAINING	NO. OF PARTICIPANTS
1	Cyber Security Operations	Local	1
2	Protection and Management of Electricity Infrastructure	Foreign	2
3	Prevention of Corruption in Projects	Foreign	2
TOTA		5	

d) Logistical Support

The Authority's motor vehicle fleet stood at 50 at the beginning of the year 2021. However, as at 31st December 2021, the Authority disposed-off eight (8) personal to holder motor vehicles to members of Senior Management. The latter was implemented in line with the Terms and Conditions of Service for REA. Out of the motor vehicle fleet of 50, four (4) were digger derricks, an equipment used to excavate and plant poles. These were purchased as an initiative to curb the spread of COVID-19 as it lessened human interactions.

3.11. Legal Services

The Legal Services Unit is responsible for implementing all legal matters concerning REA. The Unit attended to civil litigation matters instituted against REA and offered legal guidance to the Authority.

Additionally, during the period under review the Authority in collaboration with the Zambia Law Development Commission (ZLDC) and the Ministry of Justice undertook a stakeholder consultative meeting to validate the report on the preparation of the Rural Electrification Authority (Amendment) Bill. The Bill was finalized and handed over to the Ministry of Energy on 3rd February 2021.

3.12. Procurement

During the period under review, the Authority continued to undertake the Procurement of various goods and services in accordance with the Public Procurement Act No. 12 of 2008, the Public Procurement Regulations of 2011 and WB Procurement Guidelines, for Government funded projects and for the ESAP funded by the WB, respectively. Further, the Authority conducted price reasonableness analysis as required by the ZPPA. Table 17 highlights the

procurement costs towards Grid development, Renewable Energy Development and Support Activities in 2021:

Table 17: Procurement Costs

NO.	PROCUREMENT CATEGORY	AMOUNT (K)
1.	Grid Development	120,692,705.19
2.	Renewable Energy Development	3,388,425.74
3.	Support Activities	32,672,163.31
TOTAL		156,753,294.24

Note K1= USD \$ 16

3.13. Internal Audit and Risk Management

3.13.1. Internal Audit

The Authority through Internal Audit activities provides independent assurance and consulting services to the Board and Management by evaluating the adequacy and effectiveness of internal controls, risk management and governance processes. Management was engaged on the corrective actions or improvements needed and tracked on a regular basis for timely resolutions. During the period under review, the Authority undertook four (4) process performance audits.

3.13.2 Risk Management

In its quest to manage risk that may occur in implementing its activities, the Authority continued to maintain and monitor departmental and corporate risk registers. During the period under review the eminent risks that the Authority encountered were:

a) Inadequate budget towards the implementation of the Rural Electrification Programme in line with Rural Electrification Master Plan (REMP) financial target

The REMP stipulates that an annual funding of US\$50 million was required to successfully electrify the 1,217 Rural Growth Centres which

in turn will facilitate for the achievement of 51% rural population with access to electricity. The Authority was allocated a total sum of K307 million which translates to about 32% of the REMP financial target thus hampering the implementation of the required projects and activities necessary to achieving 51% rural population access to electricity by 2030.

b) Inadequate funds towards operational costs of the Authority

The Parliamentary allocation towards the operational budget for the Authority in 2021 was K 13 million. However, the required resource envelope for the operational budget in 2021 was K90 million. This represented a shortfall of 86% of the required resources towards the operational cost.

c) The Corona Virus Disease (COVID-19) pandemic affected the implementation of activities

The global pandemic continued to affect the manner in which the Authority was implementing its activities. The Authority experienced delays in the sourcing of goods and services which consequently affected the implementation schedule of projects. Further, the pandemic contributed to low productivity from members of staff as they were either directly or indirectly affected.

d) Delay in the implementation of the approved Organizational Structure

The current Organizational Structure was approved alongside the Strategic Plan 2019-2021 by the Board of Directors in 2019. However, as at 31st December 2021, the structure was yet to be fully operationalized. This situation affected the efficient and effective implementation of activities falling under the five (5) Strategic Objectives of the Authority's Strategic Plan 2019-2021.

e) Depreciation of the Zambian Kwacha and increase in Inflation rate

The depreciation of the Zambian Kwacha against convertible foreign currencies,

specifically the United States Dollar (US\$), affected the procurement of imported project materials, ICT tools and software. Further, the increase in inflation rate eroded the purchasing power of the kwacha for goods and services that were priced in major convertible currencies such as the United States dollar.

f) Continued Low connections to electricity in project areas.

The Authority continued to experience low connections to electricity in project areas as a result of:

- i. The failure by targeted beneficiaries' inability to connect to electricity due to low-income levels which deters the beneficiaries' from undertaking internal wiring;
- ii. The continued unwillingness of public officers to undertake internal wiring at the staff houses due to the uncertainty of job permanency in the electrified project area resulted in continued low levels of access to electricity in rural areas; and
- iii. The continued shortage of a certified Electrician to undertake internal wiring in accordance with ZESCO Limited's regulations continued to hamper the achievement of planned connections.

3.14. Integrity Committee

During the period under review, the Legal Unit was spearheading the implementation of the Integrity Committee activities. The Committee's mandate was to strengthen the principles of good Corporate Governance as well as other internal policies and procedures and relevant regulatory framework.

In the year under review, the Committee held 12 monthly meetings. In addition, the Integrity Committee submitted Quarterly Reports to the ACC on the progress made towards achieving the activities outlined in the Authority's 2021 Anti-Corruption Prevention Action Plan (ACPAP).

4.0 FINANCE

4.1 Institutional Budget

The Rural Electrification Act No.20 of 2003 specifies the sources of funding for the Rural Electrification Fund (REF) which include an appropriation by Parliament, 3% electricity levy loans, grants and donations from Cooperating Partners (CP). In the year 2021, the main contributor to the REF was the GRZ. The 2021 budget had two components namely, Capital and Operational budget.

The 2021 Institutional budget was K760,757,512.00. The budget was financed by the GRZ and sources such as Cooperating Partners amongst others. The funds from GRZ represented 54% of the budget while the remaining 46% were funds from other sources. The appropriation by Parliament was classified as appropriation by parliament-REF and appropriation by parliament-REA towards Capital and Operation expenditure, respectively.

a) Income

A total sum of K742,774,557.00 against a total budget of K760,757,512.00 was allocated towards capital expenditure during the year 2021. This entailed that 98% of the total budget was allocated towards Capital expenditure while the remaining 2% was allocated towards the Operational costs. Figure 5 illustrates the allocation of the 2021 Institutional budget.

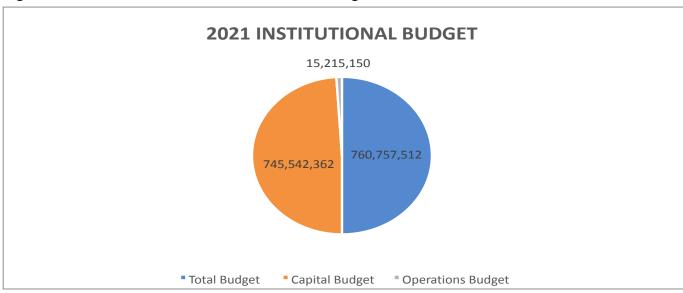


Figure 5: Allocation of the 2021 Institutional Budget

b) Expenditure

During the year under review, REA allocated a total sum of K652,739,548.00 against the total K742,774,557.00. This situation was as a result of the K90,000,000.00 being disbursed in August 2021 despite not being allocated during the budgeting process. Thus, the Authority allocated the K652,739,548.00 as follows:

- i. Grid Extension development accounted for 33.1%;
- ii. ESAP project accounted for 47.3%;
- iii. Mini hydro development accounted for 3.6%;
- iv. Solar projects development accounted for 7.5%; and
- v. Other project management related activities accounted for 8.5%.

The 2021 Operations Budget for the Authority was fully funded by the GRZ through the Ministry of Finance. A total amount of K13,131,667.00 was allocated by GRZ for the 2021 operations. Further the Authority provided for income earned through interest on investment funds. Thus, the Authority made a provision of annual interests of K4,851,288.00. Further, personnel Costs account for K60,963,201.00 representing 8.50 percent of the budget and re-current Expenditure costs account for K29,036,140.00 representing 4.10 percent of the budget.

4.2 Budget Trends

This section highlights the budget trends of the Authority for a period of five (5) years from 2017 to 2021. The budget trend is presented in two (2) budgeting categories namely operational and capital budget, respectively.

a) Operational Budget Trends

The operational budget trends over a period of five (5) years shows that the parliamentary allocation was only matched in the years 2018 and 2017. In the years 2019 to 2021 disbursements fall short on an average of 49.3%. Further, the total disbursements by treasury were K59,717,202.50 against a parliamentary allocation K 73,634,381.00 during the five (5) year period. The latter reveals that the disbursements by treasury fell short by K 13,917,178.50 over a spun of five (5) years. Table 15 highlights the Parliamentary allocation against treasury disbursement.

Table 15: Operational Budget Trends

YEAR	PARLIAMENTARY ALLOCATION (K)	TREASURY DISBURSEMENT (K)
2021	13,131,667.00	9,079,149.50
2020	13,168,722.00	9,876,544.00
2019	15,817,992.00	9,245,509.00
2018	15,758,000.00	15,758,000.00
2017	15,758,000.00	15,758,000.00
TOTAL	73,634,381.00	59,717,202.50

b) Capital Budget Trends

The Capital budget trends over a period of five (5) years shows that the parliamentary allocation was only matched in the 2017. In the remaining years the budget fell short on an average of 30.2%. Further, the total disbursements by treasury was 798,778,628.00 against a parliamentary allocation K 1,005,689,449.00 during the five (5) year period. The latter reveals that the disbursements by treasury fall short by K 206,910,821.00 over a spun of five (5) years. Table 16 highlights the Parliamentary allocation against treasury disbursement.

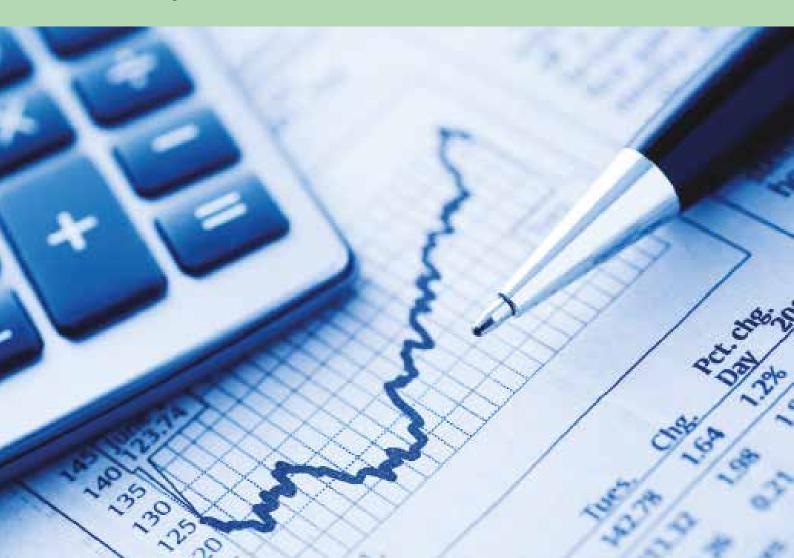
Table 16: Capital Budget Trends

YEAR	PARLIAMENTARY ALLOCATION (K)	TREASURY DISBURSEMENT (K)
2021	307,199,557.00	296,000,000.00
2020	166,339,781.00	166,339,781.00
2019	166,634,091.00	102,958,939.00
2018	251,000,000.00	118,963,908.00
2017	114,516,000.00	114,516,000.00
TOTAL	1,005,689,449.00	798,778,628.00



APPENDIX I: Audited Financial Statement

for the year ended 31st December 2021





Rural Electrification Authority

Financial Statements for the year ended 31 December 2021

REPORT AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2021

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BOARD MEMBERS, MANAGEMENT AND ADVISORS

Board Members up to 31 October 2021

Mr. Johnstone Chikwanda Chairperson Mrs. Doris Chomba Tembwe Vice-Chairperson

Ms. Rita Mkandawire Member Member Mrs. Agness Mofya Mwansa Mr. Kayula Chimfwembe Member Mr. Clement Sasa Member

Mr. Clement Silavwe **Board Secretary**

New Board Members appointed in December 2021

Eng. Likonge Brenda Makai- Mulenga Chairperson Mr. Bruce Jaani Vice-Chairperson

Ms. Nancy Mwamba Member Mrs. Mazuba Mwambazi Member Mr. Kayula Chimfwembe Member Mr. Caeser Cheelo Member Mr. Mafayo Ziba Member

Mr. Clement Silavwe Board Secretary (Retired on 28th December 2021) Mr. Clement Sasa Board Secretary (Appointed on 28th September

2021)

Management

Mr. Clement Silavwe Chief Executive Officer (Retired on 28th December 2021)

Mrs. Jacqueline Musonda Director – Strategy & Planning

Mr. Goodson Kamanga Director – Human Resources & Administration

(Retired on 28th December 2021)

Director – Engineering Services (Retired on 28th December 2021) Mr. Patrick Mubanga

Mr. Guylet Kunda Director - Finance (Retired on 28th December 2021

Mrs. Laura Malao Daka Legal Counsel and Company Secretary

Mr. Sylvester Mphande Manager – Procurement Mr. Justin Mukosa Manager - Corporate Affairs

Manager - Audit & Risk (Appointed on 1st June 2021)

Mr. Joseph Kenya Mr. Clement Sasa Acting Chief Executive Officer (Appointed on 28th September 2021) Acting Director Engineering Services (Appointed on 28th September Mr. Edmond Mkumba

2021)

Mr. Joseph Ntanda Acting Director Finance (Appointed on 28th September 2021)

Ms. Sandra Ndhlovu Acting Director Human Resources and Administration (Appointed on

28th September 2021)

BOARD MEMBERS, MANAGEMENT AND ADVISORS (CONTINUED)

Legal Advisors

Mosha and Company

Bankers

Zambia National Commercial Bank Plc Bank of Zambia Citi Bank Zambia Limited ABSA Bank Zambia PLC

Auditors

Grant Thornton 5309 Dedan Kimathi Road 5th Floor Mukuba Pension House P O Box 30885 Lusaka

Registered Office and Principal Place of Business

Plot 5033 Longolongo Road Post Net Box 349 P/Bag E891 Lusaka

REPORT OF THE DIRECTORS

The Directors present their report and the financial statements for the year ended 31 December 2021.

Principal activities

The Rural Electrification Authority (REA) was established by an Act of Parliament No. 20 of 2003. Its primary aim is to provide electricity infrastructure to the whole nation targeting rural communities as mandated by Government. The principal activity of Rural Electrification Authority ("the Authority") is to increase the availability of electricity in the rural areas and access to electricity by the rural population.

Under the Act, REA is mandated with the tasks of administering and managing the Rural Electrification Fund. The Authority shall apply the moneys of the Fund to increasing the availability of electricity in rural areas and access to electricity by rural populations.

According to the Rural Electrification Act No. 20 of 2003, the functions of the Authority shall be to:

- (a) Administer and manage the Rural Electrification Fund;
- (b) Develop, implement and update rural electrification master plans for the systematic electrification of rural areas;
- (c) Promote the utilization of available rural electrification technological options to enhance the contribution of energy to the development of agriculture, industry, mining and other economic activities in rural areas;
- (d) Mobilise funds from within and outside Zambia in support of rural electrification;
- (e) Offer on a competitive basis, the construction of rural electrification projects and periodically publish information on programmes being carried out;
- (f) Design and offer, on a competitive basis, to developers or operators, smart subsidies for capital costs on projects that are designed to supply energy for development of rural areas;
- (g) In conjunction with stakeholders, develop mechanisms for the operation of grid extension networks for rural electrification and other rural energy supply systems;
- (h) Finance project preparation studies for rural electrification projects in accordance with guidelines developed and approved by the Authority;
- (i) Recommend to Government policies for enhancement of access to electricity by the rural populations; and
- (j) Undertake such other activities as are conducive or incidental to the performance of its functions under the Act.

Financial results

The Rural Electrification Authority recorded a surplus of income over expenditure of K2,682,922 for the year ended 31 December 2021 (2020: deficit of income over expenditure of K7,797,209).

The Rural Electrification Fund recorded a surplus of income over expenditure of K308,976,957 for the year ended 31 December 2021 (2020: surplus of income over expenditure of K326,284,822).

Directors

The Directors who held office during the year were:

Board Members who held office up to 31 October 2021

Mr. Johnstone Chikwanda - Chairperson
Mrs. Doris Chomba Tembwe - Vice-Chairperson

Ms. Rita Mkandawire - Member
Mrs. Agness Mofya Mwansa - Member
Mr. Kayula Chimfwembe - Member
Mr. Clement Sasa - Member

Mr. Clement Silavwe - Chief Executive Officer

RURAL ELECTRIFICATION AUTHORITY

New Board Members appointed in December 2021

- · · · · · - · · · · · · · · · · · · ·		
Eng. Likonge Brenda Makai - Mulenga	-	Chairperson
Mr. Bruce Jaani	-	Vice-Chairperson
Ms. Nancy Mwamba	-	Member
Mrs. Mazuba Mwambazi	-	Member
Mr. Kayula Chimfwembe	-	Member
Mr. Caeser Cheelo	-	Member
Mr. Mafayo Ziba	-	Member
Mr. Clement Silavwe	-	Member (Retired on 28th December 2021)
Mr. Clement Sasa	-	Acting Chief Executive Officer (Appointed on 28th
		September 2021)

Directors' expenses

The Directors' expenses for the year were K3,009,759 (2020: K793,276).

Property and equipment

The following are the additions to property and equipment during the year:

	Rural Electrification Fund	Rural Electrification Authority
	K	K
Capital work in progress (CWIP) Motor vehicles	202,043,642 21,408,634	-
Office equipment Furniture and fittings	4,871,519 173,571	-
Office machinery Land & buildings	- - 228 497 367	-

During the period under review, the Authority did implement capital project works valued at K202,043,642.

Health and safety of employees

The Directors are aware of their responsibilities regarding the health and safety of employees and have put appropriate measures in place to safeguard the health and safety of employees. There were no fatalities during the year. Following the advent of the covid-19 pandemic, the Directors have put in place health and safety measures as directed by the Ministry of Health to avoid the spread of covid-19.

Donations

There were no donations made during the year.

Employees

The average number of employees during the year was less than 115 (2020: less than 100). The total remuneration paid to the employees during the year was K68,360,582 (2020: K46,462,393).

REPORT OF THE DIRECTORS (CONTINUED)

Overall assessment of impact of Covid -19 on preparation and presentation of the financial statements

The World Health Organization (WHO) declared the Coronavirus outbreak a global pandemic on 11th March, 2020 and instituted international measures to curb the spread of the disease by implementing robust measures to support early disease detection, isolation and supportive treatment of cases as well as contact tracing of the disease.

At national level Government through the Ministry of Health issued two Statutory Instruments (SIs) as a response to the Covid-19 pandemic. SI No. 21 of 2020 declared Covid-19 as a notifiable infectious disease in line with Section 9 of the Public Health Act. SI No. 22 of 2020, set out actions aimed at limiting the spread of Covid-19. The common ones included, social distancing, face masking, hand sanitizing, minimal grouping, and self-isolation.

At institutional level, the Authority decided to work within the frontier of measures that Government has instituted through the Ministry of Health. The Authority domesticated the health and safety policies and practices by Government to Covid-19 prevention. Prominent among these measures were:

- 1. Implementation of rotational schedule for members of staff in order to maintain minimal numbers within the office premises and administering standard general guidelines to respond to the new expectations under the existing conditions of covid-19 alertness.
- 2. Reduction of workmanship in on-going project areas as an adherence measure to guidelines by the Ministry of Health.
- 3. Provision of Covid-19 preventative material and equipment to Rural Health in areas where rural electrification projects were on-going. These materials included face masks, surgical gloves, dispensers, methylated spirit and hand sanitizers and hand washbasins. The objective of this action was to help safeguard the health and safety of project workers, Rural Health Centre members of staff and communities living in these project areas.
- 4. Procurement of essential Information and Communication Technology (ICT) requirements for members to staff to sustain work progression within home environments. These included Zoom licenses, Velocity Routers and internet bundles.

As future plans, the Authority intends to continue enforcing the above measures by playing a critical role in ensuring that it safeguards the health and safety of members of staff, project workers and more so for communities in which it is undertaking projects. Additionally, the Authority plans to implement Paperless Board Solutions by procurement of Tablets (Hardware) and Diligent Board (Software) for the Board of Directors. Further, the Authority plans to procure Digger Derrick which is a piece of equipment used to dig holes, set poles and work with a variety of materials. This will help decongest the workforce within project areas and sustain enforcing recommendations for health and safety practices to Covid-19 prevention by Government.

The Board has carefully considered the Authority's unique circumstances and has assessed the financial impact of Covid-19 on financial reporting as low.

REPORT OF THE DIRECTORS (CONTINUED)

Authorisation of financial statements

The financial statements for the year ended 31 December 2021 have been approved by the Board of Directors.

Auditors

The Auditors, Messrs Grant Thornton have been appointed as Auditors for the period 2020 to 2022 and having expressed their willingness to continue in office, a resolution for their reappointment was ratified by the Board.

By order of the Board

SECRETARY

Lusaka, Zambia

Date:

STATEMENT OF DIRECTORS' RESPONSIBILITIES

Section 24 of the Rural Electrification Act No. 20 of 2003 requires the Authority to submit a report to the Minister concerning its activities during the financial year which shall include information on the financial affairs of the Authority. This report must give a true and fair view of the financial position of Rural Electrification Authority and of its financial performance and its cash flows for the year then ended, including such other information as the Minister may require. In preparing such financial statements, the Directors are required to be responsible for:

- designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement whether due to fraud or error;
- selecting appropriate accounting policies and applying them consistently;
- making judgements and accounting estimates that are reasonable in the circumstances; and
- preparing the financial statements in accordance with the International Public Sector Accounting Standards, and on the going concern basis unless it is inappropriate to presume that the Authority will continue in business.

The Directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Authority and enable them to ensure that the financial statements comply with the International Public Sector Accounting Standards and the Rural Electrification Act No. 20 of 2003. They are also responsible for safeguarding the assets of the Authority and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors confirm that in their opinion

- (a) the financial statements give a true and fair view of the financial position of the Rural Electrification Authority as of 31 December 2021, and of its financial performance and its cash flows for the year then ended;
- (b) at the date of this statement there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due; and
- (c) the financial statements are drawn up in accordance with International Public Sector Accounting Standards and the Rural Electrification Act No. 20 of 2003.

This statement is made in accordance with a resolution of the Directors.

Signed on behalf of the Board at Lusaka on 17 June 2022.

Board Chairperson

Ciliei Executive Officei

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF RURAL ELECTRIFICATION AUTHORITY

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of Rural Electrification Authority, which comprise the statement of financial position as at 31 December 2021, and the statement of financial performance, statement of changes in accumulated funds and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements give a true and fair view of the financial position of Rural Electrification Authority as of 31 December 2021, and of its financial performance and its cash flows for the year then ended in accordance with International Public Sector Accounting Standards (IPSASs).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the company in accordance with International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial statements in Zambia, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Public Sector Accounting Standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

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INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF RURAL ELECTRIFICATION AUTHORITY (CONTINUED)

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatements, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level assurance but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional

skepticism throughout the audit. We also: Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management. Conclude on appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements, or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However,

Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

future events or conditions may cause the Authority to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

The financial statements have been properly prepared in accordance with the Rural Electrification Act No. 20 of 2003, and the accounting and other records and registers have been properly kept in accordance with the Act.

Grant The Internation Chartered Accountants

Rodia Milumbe Musonda – AUD/F000367 Partner signing on behalf of the Firm

Lusaka

Date:

RURAL ELECTRIFICATION AUTHORITY

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31 DECEMBER 2021

			2021			2020	
	Notes	Consolidated K	Rural Electrification Authority K	Rural Electrification Fund K	Consolidated	Rural Electrification Authority K	Rural Electrification Fund K
Revenue from non-exchange transactions International donor funding Government grants	r. 0	113,270,635 320,368,279 433,638,914	- 13,168,722 13,168,722	$\frac{113,270,635}{307,199,557}$ $\frac{420,470,192}{420,470,192}$	118,159,333 <u>276,376,544</u> <u>394,535,877</u>	9,876,544 9,876,544	$118,159,333 \\ \underline{266,500,000} \\ \underline{384,659,333}$
revenue from exchange transactions Finance income Other income	L- 80	3,237,247 10,239,373 13,476,620	$ \begin{array}{r} 2,172,038 \\ 9,949,967 \\ \hline 12,122,005 \end{array} $	$ \begin{array}{r} 1,065,209 \\ 289,406 \\ \hline 1,354,615 \end{array} $	4,383,501 <u>25,794,235</u> <u>30,177,736</u>	4,290,639 1,626,536 5,917,175	92,862 24,167,699 24,260,561
Total revenue		447,115,534	25,290,727	421,824,807	424,713,613	15,793,719	408,919,894
Expenses Employee costs Administration expenses Project studies and consultancy Depreciation expense Rental expense Exhibition and publicity Travel, transport, and subsistence Total expenses	6 11 13 13	68,360,582 26,081,870 27,119,758 7,877,098 4,700,968 1,283,833 31,546 135,455,655	14,887,825 2,054,236 535 5,658,513 - 6,696	53,472,757 24,027,634 27,119,223 2,218,585 4,700,968 1,283,833 24,850 112,847,850	46,462,393 32,782,687 15,700,459 6,376,660 4,885,264 - 18,537 106,226,000	16,525,541 2,296,635 7,200 4,750,534 - 11,018	29,936,852 30,486,052 15,693,259 1,626,126 4,885,264 - 7,519 82,635,072
Surplus/(deficit) for the year		311,659,879	2,682,922	308,976,957	318,487,613	(7,797,209)	326,284,822

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2021

			2021			2020	
	Notes	Consolidated K	Rural Electrification Authority K	Rural Electrification Fund K	Consolidated K	Rural Electrification Authority K	Rural Electrification Fund K
Assets Non-current assets		1	1	1	1	1	1
Property and equipment Capital work in progress	13	32,319,048 956,129,589	6,365,486	25,953,562 956,129,589	13,742,421 754,085,947	13,742,421	754,085,947
Investments	15	5,404,516	1	5,404,516	1	1	1
Total non-current assets		993,853,153	6,365,486	987,487,667	767,828,368	13,742,421	754,085,947
Current assets							
Receivables	16	177,432,322	4,579,718	172,852,604	160,560,003	10,041,008	150,518,995
Inventory	17	39,203,116		39,203,116	15,408,876	ı	15,408,876
Cash and cash equivalents	18	147,571,682	3,911,519	143,660,163	128,697,453	990,335	127,707,118
Total current assets		364,207,120	8,491,237	355,715,883	304,666,332	11,031,343	293,634,989
Total assets		1,358,060,273	14,856,723	1,343,203,550	1,072,494,700	24,773,764	1,047,720,936

RUBAL RESCURINGATION AUTHORITY

STATEMENT OF FINANCIAL POSITION AS AT 51 DECEMBER 2021 (CONTINUED)

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	Nobe	Consideration	Authority		Constituted	Authority	
		₩	₩	M	₩	₩	₩
Peorle and Establism Peorle and exerces							
General front		(2,005,957) 240 Et 1927	(18/08/2951)	1 240 554 057	(20,766,679)	(20,766,879)	1 1001 577 1000
Total famile		1,322,470,096	(18088951)	1,040,554,087	1,010,810,207	(20,766,879)	1,021,577,080
Non-connect full files							
Capital grants Total nan-connect Establism	2	1278.22	523321	<u> </u>	5310,751 5310,751	5310,751 5310,751	
Consult Full Tries							
Capital grants	P (1,076,076	1,074,076	1 2	1,100,584	1,100,584	1
Tatal connet listalifies	8	22,363,960	29,712,447	2,640,513	58,879,742	42.239,856	16.1-6.156
Total Schilden		36,590,187	22,540,674	2,649,513	61,584,453	4550,677	16149,156
Total family and Establics		1,250,000,275	14,654,724	124520550	1072494.700	24,774,784	1.047.720.936

Director

Mmy

STATEMENT OF CHANGES IN ACCUMULATED FUNDS FOR THE YEAR ENDED 31 DECEMBER 2021

	Rural Electrification Authority K	Rural Electrification Fund K	Total K
Balance at 1 January 2020 (Deficit)/surplus for the year Transfers to ZESCO Limited (a) Balance at 31 December 2020	(12,969,664) (7,797,209) ————————————————————————————————————	761,263,375 326,284,822 (55,971,117) 1,031,577,080	748,293,711 318,487,613 (55,971,117) 1,010,810,207
Surplus for the year Transfers to ZESCO Limited (a) Balance at 31 December 2021	2,682,922 	308,976,957 - 1,340,554,037	311,659,879

⁽a) Transfers to ZESCO Limited (ZESCO) represent completed and commissioned projects that are transferred by the Authority to ZESCO for operation and maintenance at no consideration. This is because ZESCO and REA are both agencies of the Government of the Republic of Zambia. During the period under review, REA did not transfer any projects to ZESCO.

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2021

	Note	2021 K	2020 K
Cash flows from operating activities			
Surplus/(deficit) for the year			
- Rural Electrification Authority		2,682,922	(7,797,209)
Surplus for the year - Rural Electrification Fund		308,976,957	326,284,822
Adjusted for:			
Amortisation of capital grants	19	(2,132,038)	(1,626,536)
Depreciation expense	13	7,877,098	6,376,660
Finance income		(10,239,374)	(4,383,501)
Operating cash flows before working capital		207445555	240.054.224
movements		307,165,565	318,854,236
Movement in operating funds			
Increase in receivables		(16,872,319)	(139,152,492)
(Increase)/decrease in inventory		(23,794,240)	2,271,111
(Decrease)/increase in payables		(25,984,275)	3,750,618
Net cash generated from operating activities		240,514,731	185,723,473
Cash flows from investing activities		(.	
Investments purchased	15	(5,404,516)	- 4 202 F04
Interest received Acquisition of plant and equipment	13	10,239,374 (26,453,725)	4,383,501 (1,859,120)
Additions to capital work in progress	13	(202,043,642)	(1,839,120)
Net cash used in investing activities	17	(223,662,509)	(117,591,344)
The count does in investing wearings		(===,00=,00)	(11/30/130/1)
Cash flow from financing activities			
Capital grants received	19	<u>2,022,006</u>	351,239
Net cash generated from financing activities		2,022,006	351,239
Net increase in cash and cash equivalents		18,874,228	68,483,368
Cash and cash equivalents at beginning of year		<u>128,697,454</u>	60,214,085
Cash and cash equivalents at end of year	18	<u>147,571,682</u>	128,697,453

STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS FOR THE YEAR ENDED 31 DECEMBER 2021

	Budget	Actual	Performance Difference
	K	K	K
Revenue			
International donor funding	364,702,199	113,270,635	(251,431,564)
Funds in investment	76,000,000	-	(76,000,000)
Government grants	372,652,102	320,368,279	(52,283,823)
Finance income	8,484,655	10,239,373	1,754,718
Other income	813,000	3,237,247	2,424,247
Total income	822,651,956	447,115,534	(375,536,422)
Expenses			
Employee costs	69,115,111	68,360,582	754,529
Administration expenses	36,850,799	33,958,968	2,891,831
Project studies and consultancy	705,257,291	27,119,758	678,137,533
Rental expense	6,976,090	4,700,968	2,275,122
Exhibition and publicity	1,439,000	1,283,833	155,167
Travel, transport and subsistence	<u>3,013,665</u>	31,546	2,982,119
Total expenses	822,651,956	135,455,655	687,196,301
Surplus for the year		<u>311,659,879</u>	<u>311,659,879</u>

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

1. **General Information**

Establishment

The Rural Electrification Authority ("the Authority) was established by the Rural Electrification Act No. 20 of 2003 of the Laws of Zambia (the "Act"). The principal activity of Rural Electrification Authority is to increase the availability of electricity in the rural areas and access to electricity by the rural population.

The Authority is mandated with the tasks of administering and managing the Rural Electrification Fund (REF); developing and implementing the Rural Electrification Master Plan (REMP), mobilizing funds to support rural electrification, encouraging private sector participation in rural electrification through provision of smart subsidies, competitive bidding and community mobilisation, financing project preparation studies for rural electrification and recommending to government suitable policies.

The address of its registered office and principal place of business is disclosed on page 1.

2. Statement of compliance and basis of preparation

The financial statements of the Authority have been prepared in accordance with and comply with International Public Sector Accounting Standards (IPSAS). The financial statements are presented in Zambian Kwacha (K), which is the functional and reporting currency of the Authority. The accounting policies have been consistently applied to all the years presented.

The financial statements have been prepared on the basis of historical cost, unless stated otherwise. The statement of cash flows is prepared using the indirect method. The financial statements are prepared on an accrual basis.

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

3. Summary of significant accounting policies

(a) Revenue recognition

Revenue from non-exchange transactions

Electricity levies

The Authority recognizes the revenues from electricity levy when the event occurs and the asset recognition criteria are met to the extent that there is a related condition attached that would give rise to a liability to repay the amount, deferred income is recognized instead of revenue. Other non-exchange revenues are recognized when it is probable that the future economic benefits or service potential associated with the asset will flow to the entity and the fair value of the asset can be measured reliably.

Transfers from Government and Donors

Revenues from non-exchange transactions with Government and donors are measured at fair value and recognized on obtaining control of the asset (cash, goods, services and property) if the transfer is free from conditions and it is probable that the economic benefits or service potential related to the asset will flow to the Authority and can be measured reliably.

Revenue from exchange transactions

Interest income

Interest income is accrued using the effective yield method. The effective yield discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount. The method applies this yield to the principal outstanding to determine interest income each period.

(b) **Property and equipment**

Property and equipment are stated at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the items. When significant parts of plant and equipment are required to be replaced at intervals, the Authority recognizes such parts as individual assets with specific useful lives and depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in surplus or deficit as incurred. Where an asset is acquired in a non-exchange transaction for nil or nominal consideration the asset is initially measured at its fair value.

Depreciation

Depreciation on assets is charged on a straight-line basis over the useful life of the asset. Depreciation is charged at rates calculated to allocate the cost or valuation of the asset less any estimated residual value over its remaining useful life:

Office equipment	25%
Furniture and fittings	20%
Computer equipment	33%
Office furniture	25%
Motor vehicles	25%
Capital work in progress	Nil

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(b) Property and equipment (continued)

The assets residual values and useful lives are reviewed, and adjusted prospectively, if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount, or recoverable service amount, if the asset's carrying amount is greater than its estimated recoverable amount or recoverable service amount.

The Authority derecognizes items of property and equipment and/or any significant part of an asset upon disposal or when no future economic benefits or service potential is expected from its continuing use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the surplus or deficit when the asset is derecognized.

(c) Impairment of non-financial assets

At each reporting date, the Authority assesses whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Authority estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an assets or cash-generating unit's fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets.

Where the carrying amount of an asset or the cash-generating unit (CGU) exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used.

Impairment losses of continuing operations, including impairment on inventories, are recognized in the statement of financial performance in those expense categories consistent with the nature of the impaired asset.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(d) **Inventory**

Inventory is measured at cost upon initial recognition. To the extent that inventory was received through non-exchange transactions (for no cost or for a nominal cost), the cost of inventory is its fair value at the date of acquisition.

Costs incurred in bringing each product to its present location and condition are accounted for at purchase cost using the weighted average cost method.

After initial recognition, inventory is measured at the lower of cost and net realizable value. However, to the extent that a class of inventory is distributed or deployed at no charge or for a nominal charge, that class of inventory is measured at the lower of cost and current replacement cost.

Net realizable value is the estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange, or distribution.

(e) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and cash at bank, deposits on call and highly liquid investments with an original maturity of three months or less, which are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value. For the purpose of the statement of cash flows, cash and cash equivalents consist of cash and short-term deposits as defined above, net of outstanding bank overdrafts.

(f) **Provisions**

Provisions are recognized when the Authority has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Where the Authority expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is recognized as a separate asset only when the reimbursement is virtually certain.

The expense relating to any provision is presented in the statement of financial performance net of any reimbursement.

(g) Contingent liabilities

The Authority does not recognize a contingent liability but discloses details of any contingencies in the notes to the financial statements, unless the possibility of an outflow of resources embodying economic benefits or service potential is remote.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(h) **Contingent assets**

The Authority does not recognize a contingent asset, but discloses details of a possible asset whose existence is contingent on the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Authority in the notes to the financial statements. Contingent assets are assessed continually to ensure that developments are appropriately reflected in the financial statements. If it has become virtually certain that an inflow of economic benefits or service potential will arise and the asset's value can be measured reliably, the asset and the related revenue are recognized in the financial statements of the period in which the change occurs.

(i) Employee benefits

All employees are on contract, provision is made for end of contract gratuity on an accruals basis for the period in employment at the rate of 35% of basic salary.

Membership of the statutory National Pension Scheme ('NAPSA') is compulsory and monthly contributions by both employer and employees are made. The employer's contribution is accounted for in the statement of financial performance as it arises.

(j) Leasing

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

(k) Foreign currency transactions

Transactions in foreign currencies are initially accounted for at the ruling rate of exchange on the date of the transaction. Creditors or debtors denominated in foreign currency are reported at the reporting date by applying the exchange rate on that date. Exchange differences arising from the settlement of creditors, or from the reporting of creditors at rates different from those at which they were initially recorded during the period, are recognized as income or expenses in the period in which they arise.

(l) Related parties

The Authority regards a related party as a person or an entity with the ability to exert control individually or jointly, or to exercise significant influence over the Authority, or vice versa. The Rural Electrification Authority is a statutory body which was created by an Act of Parliament and is controlled by the Government of the Republic of Zambia (GRZ). There are other entities that are related to the Authority through common control.

(m) **Budget information**

The annual budget is prepared on the accrual basis, that is, all planned costs and income are presented in a single statement to determine the needs of the Authority. As a result of the adoption of the accrual basis for budgeting purposes, there are no basis, timing or entity differences that would require reconciliation between the actual comparable amounts and the amounts presented as a separate additional financial statement in the statement of comparison of budget and actual amounts. Explanatory comments are provided in the notes to the annual financial statements; first, the reasons for overall growth or decline in the budget are stated, followed by details of overspending or underspending on line items.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(n) Capital grants

Capital grants are not recognized until there is reasonable assurance that the Authority will comply with the conditions attached to them and that the grants will be received.

(o) Financial instruments

Financial assets

Initial recognition and measurement

Financial assets within the scope of IPSAS 29 "Financial Instruments: Recognition and Measurement" are classified as loans and receivables or held-to-maturity investments, as appropriate. The Authority determines the classification of its financial assets at initial recognition.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketable (regular way trades) are recognized on the trade date, i.e., the date that the Authority commits to purchase or sell the asset. The Authority's financial assets include: cash and short-term deposits; and loans and receivables.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortised cost using the effective interest method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. Losses arising from impairment are recognized in the surplus or deficit.

Derecognition

The Authority derecognizes a financial asset or where applicable, a part of a financial asset or part of a group of similar financial assets when:

- i. The rights to receive cash flows from the asset have expired or waived.
- ii. The Authority has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party; and either: (a) the Authority has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(o) Financial instruments (continued)

Impairment of financial assets

The Authority assesses at each reporting date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include the following indicators:

- i. The debtors or a group of debtors are experiencing significant financial difficulty;
- ii. Default or delinquency in interest or principal payments;
- iii. The probability that debtors will enter bankruptcy or other financial reorganization;
- iv. Observable data indicates a measurable decrease in estimated future cash flows (e.g. changes in arrears or economic conditions that correlate with defaults).

Financial assets carried at amortised cost

For financial assets carried at amortised cost, the Authority first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Authority determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be recognized are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present values of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognized in surplus or deficit. Loans together with the associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realized or transferred to the Authority. If, in a subsequent year, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognized, the previously recognized impairment loss is increased or reduced by adjusting the allowance account. If a future write-off is later recovered, the recovery is credited to finance costs in surplus or deficit.

Financial liabilities

Initial recognition and measurement

Financial liabilities within the scope of IPSAS 29 are classified as financial liabilities at fair value through surplus or deficit or loans and borrowings, as appropriate. The Authority determines the classification of its financial liabilities at initial recognition.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

3. Summary of significant accounting policies (continued)

(o) Financial instruments (continued)

All financial liabilities include trade and other payables, bank overdrafts.

Subsequent measurement

The measurement of financial liabilities depends on their classification.

Other financial liabilities are initially measured at fair value, net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognized on an effective yield basis.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts in surplus or deficit.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statement of financial position if, and only if, there is currently an enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Fair value of financial instruments

The fair value of financial instruments that are traded in active markets at each reporting date is determined by reference to quoted market prices or dealer price quotations (bid price for long positions), without any deduction for transaction costs.

4. Significant judgements and sources of estimation uncertainty

The preparation of the Authority's financial statements in conformity with IPSAS requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are described below. The Authority based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. However, existing circumstances and assumptions about future developments may change due to market changes or circumstances arising beyond the control of the Authority. Such changes are reflected in the assumptions when they occur.

Useful lives and residual values

The Directors reviewed the estimated useful lives of property, plant and equipment at the end of each annual reporting period to determine the appropriate level of depreciation and whether there is any indication that those assets have suffered an impairment loss. The Directors judged a residual value of zero as a result of the fact that plant and equipment are not held for trading and are normally scrapped.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

5. International donor funding 2021 2020 K K Rural Electrification Fund Received from the World Bank (ESAP) 113,270,635 118,159,333

International donor funding represents those funds received for specific projects undertaken by the Authority to enhance infrastructure. These funds were received on the basis of the project budgets submitted. Accordingly, the Authority is contractually bound to spend funds only in connection with the projects.

Furthermore, the contracts stipulate that funds received for the project may only be applied to the costs incurred for the project, as and when the phases of the project are certified as complete by an independent engineer. The conditions remaining therefore represent phases of the projects that are yet to be certified as complete by an independent engineer. Furthermore, the contract stipulates that where funds are not spent as specified within the contract, they must be returned to the donor.

6. Government Grants

	2021 K	2020 K
Rural Electrification Fund Rural Electrification Authority	307,199,557 13,168,722 320,368,279	266,500,000 <u>9,876,544</u> <u>276,376,544</u>
Unconditional grants Rural Electrification Authority	13,168,722	9,876,544
Conditional grants Rural Electrification Fund	307,199,557	266,500,000
Consolidated	<u>320,368,279</u>	<u>276,376,544</u>

The Rural Electrification Fund was used in the Authority's quest to provide electricity to the rural populace. The unspent portion of the grant relates to projects in progress at year-end for which the funds are already committed.

	•	2021 K	2020 K
7.	Finance income Rural Electrification Authority		
	Interest on short term investments Interest on staff loans	9,853,832 <u>96,135</u> <u>9,949,967</u>	4,137,633 153,006 4,290,639
	Rural Electrification Fund Interest on staff loans	289,406 289,406	92,862 92,862
	Consolidated	10,239,373	<u>4,383,501</u>

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

8. Other income

Rural Electrification Authority	2021	2020
Capital grant-amortised (note 19) Income from sale of assets	2,172,038 	1,626,536
Rural Electrification Fund Net exchange gains Other income received Liquidated Damages	1,065,209 	24,144,199 6,500 17,000
	1,065,209	24,167,699
Consolidated	3,237,247	25,794,235

Other income received refers to income that does not fall under any prescribed account. Liquidated damages are recoveries from contractors due to non-performance.

9. Employee costs

	2021	2020
	K	K
Rural Electrification Authority		
Salaries and wages	7,815,631	8,616,215
Gratuity	1,965,850	2,834,572
Accrued leave pay	593,847	902,532
Medical scheme expenses	274,392	496,514
Staff welfare and benefits	4,238,107	3,675,707
	<u>14,887,827</u>	16,525,541
Rural Electrification Fund		
Salaries and wages	35,975,806	16,701,384
Gratuity	9,211,453	5,119,130
Accrued leave pay	2,878,145	1,551,519
Medical Scheme expenses	2,919,978	1,479,177
Staff welfare and benefits	2,487,374	5,085,642
	53,472,756	29,936,852
Consolidated	<u>68,360,583</u>	46,462,393

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

		2021 K	2020
10.	Administration expenses	K	K
	Rural Electrification Authority		
	Fuel, lubricants, and oils	772,006	677,258
	Audit expenses	, -	690
	Communication	58,967	207,825
	Training, workshops and seminars	, <u>-</u>	3,972
	Cleaning and materials	467,906	196,710
	Board of Directors allowances	, <u>-</u>	704,112
	Bank charges	8,646	13,740
	Office refreshments	513,541	193,902
	Board meeting expenses	, <u>-</u>	47,021
	Staff subscriptions	44,693	16,184
	Electricity and water	32,349	59,584
	Stationery, printing and publications	99,333	5,855
	Maintenance of equipment and buildings	45,315	79,896
	Computer software and consumables	2,530	3,071
	Impairment costs	_	86,614
	Motor vehicle repairs	100	-
	Other admin costs	8,850	201
		2,054,236	2,296,635

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

K K Rural Electrification Fund Net exchange losses 6,833,337 7,295,436 Audit expenses 976,741 1,132,335 Motor vehicle repairs 1,650,641 1,069,236 Legal fees 1,099,665 13,299,767 Communication 738,544 1,188,958 Motor vehicle insurance 457,946 786,650 Training, workshops, and seminars 1,054,283 455,033 Fuel, lubricants, and oils 717,382 1,205,232 Procurement management 2,477,536 261,240 Other administrative costs 927,563 867,079 Computer software and consumables 756,578 316,191 Board of Directors facility visit expenses 2,779,570 741,522 Stationery, printing, and publications 656,148 241,501 Software and licenses 1,008,370 662,048 Bank charges 144,258 54,554 Maintenance of equipment and buildings 123,344 301,775 Staff subscriptions 656,148 241,499<
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Cleaning materials 78,490 57,885 General insurance 79,580 8,683 Board training 230,189 51,754
General insurance 79,580 8,683 Board training 230,189 51,754
Board training 230,189 51,754
Office refreshments 65 993 44 845
Electricity and Water <u>27,610</u> <u>29,315</u>
Subtotal <u>24,027,634</u> <u>30,486,052</u>
Consolidated <u>26,081,870</u> <u>32,782,687</u>
Below is the detailed breakdown for the audit fees: 2021 2020
K K
External audit costs 662,682 929,693
Auditor General costs 9,874 55,884
Audit of REA projects <u>304,185</u> <u>147,448</u>
Consolidated <u>976,741</u> <u>1,133,025</u>
11. Project expenses
Rural Electrification Fund 27,119,223 15,693,259
Rural Electrification Authority
Consolidated 27,119,758

Project expenses are expenses that are directly associated with project implementation and monitoring. Activities that give rise to project expenses include monitoring and evaluation, project commissioning, compensation to displaced people, environmental clearing fees and rental of project offices.

12. Income tax

The Authority is exempt from income tax under Section 15 of the Zambia Income Tax Act.

RURAL ELECTRIFICATION AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

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Prope	
13.	

	Land K	Motor Vehicles K	Office equipment K	Furniture and fittings K	Office machinery K	Total K
Cost At 1 January 2020 Additions Disposals At 31 December 2020 Additions Disposals At 31 December 2021	4,774,938 884,260 5,659,198	30,479,608 (4,773,424) 25,706,184 21,408,634 (240,000) 46,874,818	5,967,764 595,367 6,563,131 4,871,519	1,417,972 351,293 	380,422 28,200 	43,020,704 1,859,120 (4,773,424) 40,106,400 26,453,725 (240,000) 66,320,125
Depreciation At 1 January 2020 Charge for the year Disposals At 31 December 2020 Charge for the year At 31 December 2021 At 31 December 2021		18,492,534 5,298,662 (4,773,424) 19,017,772 6,517,996 (25,295,768	4,749,671 918,985 - 5,668,656 1,158,071 - 6,826,727	1,171,590 117,551 1,289,141 194,533 1,483,674	346,948 41,462 	24,760,743 6,376,660 (4,773,424) 26,363,979 7,877,098 (240,000) 34,001,077
Carrying amount At 31 December 2021 At 31 December 2020	<u>5,659,198</u> <u>5,659,198</u>	21,579,050 6,688,412	4,607,923 894,475	459,162	13,714	<u>32,319,048</u> 13,742,421

The Directors reviewed the estimated useful lives of property and equipment at the end of the reporting period to determine the appropriate level of depreciation and whether there is any indication that those assets have suffered an impairment loss. The Directors believe a residual value of zero is appropriate as a result of the fact that property and equipment is not held for trading and is normally scrapped. The Directors consider that the fair value of property and equipment is at least equal to their carrying values as reflected in the statement of financial position.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

14. Capital work in progress

Rural Electrification Fund

Capital work in progress represents projects being undertaken by the Rural Electrification Authority in its quest to provide electricity to the rural populace. At the end of the project circles, the completed projects are transferred to ZESCO, for operations and maintenance at no consideration. This is because ZESCO and REA are agencies of the Government of the Republic of Zambia.

	2021	2020
Work in progress	K	K
At beginning of year	754,085,947	689,941,339
Additions during the year	202,043,642	120,115,725
Transfers of Grid Projects to ZESCO		(55,971,117)
Total capital work in progress	<u>956,129,589</u>	<u>754,085,947</u>

15. **Investments**

Rural Electrification Authority

Rulai Electrification Muthority	2021 K	2020 K
Gratuity Investment Fund	<u>5,404,516</u>	

Rural Electrification Authority completed the process of competitive selection of the Fund Manager for the Gratuity Investment Fund and Africa Life Assurance was selected and funds were deposited into the investment.

16. Receivables

Rural Electrification Authority	2021	2020
	K	K
Staff loans and advances	4,345,020	8,571,082
Due from the Government (note 23 (c))	-	1,097,394
Other receivables	76,689	76,689
Staff imprest account	158,009	295,843
	<u>4,579,718</u>	<u>10,041,008</u>

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

16. Receivables (continued)

Rural Electrification Fund	2021 K	2020 K
Due from the Government (note 23 (c)) Contractor receivables	101,199,557 _71,653,044 <u>172,852,601</u>	90,000,000 60,518,995 150,518,995
Consolidated	<u>177,432,319</u>	<u>160,560,003</u>

Staff receivables bear interest at 5% over the period of the loan.

Contractor receivables refer to advance payments made to contractors before the commencement of the rural electrification projects. These amounts are recoverable in full from the contractor.

17. **Inventory**

18.

Rural Electrification Fund	2021	2020
	K	K
Grid extension and solar energy equipment and spares	<u>39,203,116</u>	<u>15,408,876</u>

There were no write-downs of inventories recognised as an expense during the year 2021 (2020: K nil).

	2021 K	2020 K
Cash and cash equivalents		
Rural Electrification Authority		
Bank and cash balances	<u>3,911,519</u> 3,911,519	990,335 990,335
Rural Electrification Fund		
Bank and cash balances	67,660,163 67,660,163	96,707,118 96,707,118
Short-term investments classified as cash equivalents:		
Atlas Mara (Finance Bank Zambia Plc)	28,000,000	13,000,000
Access Bank Zambia Limited	48,000,000 76,000,000	<u>18,000,000</u> <u>31,000,000</u>
Total cash and cash equivalents	<u>143,660,163</u>	127,707,118
Consolidated	<u>147,571,682</u>	128,697,453

Short-term deposits are made for varying periods, depending on the immediate cash requirements of the Authority and earn interest at the respective short-term deposit rate. The fixed deposit accounts are for 28 days and renewable accordingly. These investments were done after due approval was obtained from the Secretary to the Treasury in line with the Public Finance Regulations.

RURAL ELECTRIFICATION AUTHORITY NOTES TO THE FINANCIAL STATEMENTS – 31 DECEMBER 2021

		2021 K	2020 K
19.	Capital grants At beginning of the year	4,414,335	5,689,632
	Additions during the year	2,022,006	351,239
	Grant amortisation for the year	<u>(2,132,038)</u>	(1,626,536)
	At end of the year	4,304,303	4,414,335
	Maturity analysis:		
	Current	1,076,076	1,103,584
	Non-current	3,228,227 4,304,303	3,310,751
20.	Payables	<u>4,304,303</u>	<u>4,414,335</u>
	Rural Electrification Authority		
	Other payables	788,875	294,191
	Gratuity provisions (note (a))	8,226,666	9,264,699
	Leave pay provisions (note (b))	1,197,510	1,344,555
	Ministry of Higher Education payable	39,760	20,474
	Amount payable to the government ((Note 23 (d))	<u>293,977</u>	725,846
		<u>10,546,788</u>	<u>11,649,765</u>
	Supplier payables	<u>18,089,584</u>	<u>29,476,537</u>
	Consolidated	<u>28,636,372</u>	<u>41,126,302</u>
	Rural Electrification Fund		
	Contractor payables	2,649,513	16,143,856
	Consolidated	<u>31,285,885</u>	<u>57,270,158</u>
	a) Gratuity provision		
	At beginning of the year	9,264,699	8,140,023
	Charge during the year	11,177,303	7,953,702
	Payment during the year	(12,215,336)	(<u>6,829,026)</u>
	Balance at the year end	<u>8,226,666</u>	<u>9,264,699</u>
	b) Leave pay provision		
	At beginning of the year	1,344,413	1,234,285
	Charge during the year	3,471,992	876,592
	Payments during the year	(3,618,895) _1,197,510	<u>(766,464)</u> <u>1,344,413</u>
	Balance at the year end	<u>1,197,310</u>	<u>1,344,413</u>

Provision for gratuity is made in full at all times, for the purposes of prudence, for the gratuities payable to employees from the date of commencement of employee's contract through the expiry of the contracts.

The Authority controls liquidity risk through monitoring of rolling forecasts of cash and cash equivalents on the basis of expected cash flow. In addition, the Authority's liquidity management policy involves projecting cash flows in major currencies and considering the level of liquid assets necessary to meet liabilities.

The Directors consider that the carrying amount of payables approximates their fair value.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

21. Operating lease arrangements

Rural Electrification Authority has an operating lease with Paul M. Investments Limited. The lease involves the occupancy of plot 5033 on Longolongo road Lusaka. The operating lease relates to all those premises erected upon the said plot with lease term of 1 year and the rented warehouse, with an option to renew the lease agreement. The operating lease contract contains market review clauses in the event that the Authority exercises its option to renew. The Authority does not have an option to purchase the leased property at the expiry of the lease period.

Rural Electrification Authority incurred rent during the year ended 31 December 2021 amounting to K4,700,968 (2020: K4,885,264).

22. Financial Instruments

Categories of financial instruments	2021 K	2020 K
Financial assets		
- Cash and cash equivalents	147,571,682	128,697,453
- Receivables	177,432,322	160,560,003
	<u>325,004,004</u>	<u>289,257,456</u>
Financial liabilities		
- Payables	<u>31,285,884</u>	<u>57,270,158</u>

Financial risk management objectives

The ultimate responsibility for managing risks rests with the Board of Directors. The key financial risks for the Authority are liquidity risk and foreign exchange rate risk. The Board has in place a risk management framework for the Authority's short term, medium term and long term funding requirements. The Authority manages the risk by continuously monitoring forecasts and actual cash flows and matching maturity profiles of financial assets and liabilities.

Market risk

The Authority's activities expose it primarily to the financial risks of changes in foreign currency exchange rates (see below) and interest rates (see below). The Authority does not enter into contracts to manage its exposure to interest rate and foreign currency risk to hedge the exchange rate risk arising on the borrowings from foreign entities.

There has been no change to the Authority's exposure to market risks or the manner in which it manages and measures the risk.

Liquidity risk profile

Loans, advances and other receivables, cash and cash equivalents are classified as loans and receivables whilst all liabilities are classified as other liabilities in line with International Public Service Accounting Standards (IPSAS) No. 30.

The Authority's Board of Directors reviews the capital structure of the Authority regularly. As part of the review, it considers the cost of capital and the risks associated with each class of capital.

The Authority manages capital to ensure that it will be able to continue as a going concern, while maximising the return to stakeholders through the optimisation of the debt and net asset balances. The capital structure of the Authority consists of the net debt (borrowing offset by cash and bank balances) and equity (comprising of General Fund, Rural Electrification Fund and surplus). The Authority is not subject to any externally imposed capital requirement.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

22. Financial Instruments (continued)

Fair value measurements

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced sale or liquidation.

The following methods and assumptions were used to estimate the fair values:

Cash and short-term deposits, trade receivables, trade payables and other current liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments.

Fair value hierarchy

The Authority uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities. This level includes listed equity securities and debt instruments on exchanges (for example, Lusaka Securities Exchange).

Level 2 – Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable inputs). This level includes equity investments and debt instruments with significant unobservable components.

This hierarchy requires the use of observable market data when available. The Authority considers relevant and observable market prices in its valuations where possible.

Fair value of the Authority's financial assets and financial liabilities that are measured at fair value on a recurring basis

There were no financial assets and liabilities that are measured at fair value on a recurring basis during the period.

Fair value of financial assets and financial liabilities that are not measured at fair value on a recurring basis (but fair value disclosures are required)

Except as detailed in the following table, the directors consider that the carrying amounts of financial assets and financial liabilities recognised in the financial statements approximate their fair value.

	20	021	20)20
	Carrying Amount K	Fair value K	Carrying amount K	Fair value K
Financial assets Loans and receivables: - receivables	177,432,322	<u>177,432,322</u>	<u>160,560,003</u>	160,560,003
Financial liabilities Financial liabilities held at Amortised cost: - payables	<u>31,285,884</u>	<u>31,285,884</u>	<u>57,270,158</u>	<u>57,270,158</u>

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

22. Financial Instruments (continued)

Categories of financial instruments (continued)

	Fair value hie	erarchy as at 31	December 2021	
	Level 1	Level 2	Level 3	Total
	K	K	K	K
Financial assets Loans and receivables: - receivables Financial liabilities Financial liabilities held at	_		<u>177,432,322</u>	177,432,322
amortised cost:payables			31,285,884	<u>31,285,884</u>
	Fair value hie	erarchy as at 31 Level 2	December 2020 Level 3	Total
	K	K	K	K
Financial assets Loans and receivables: - receivables Financial liabilities Financial liabilities held at		-	160,560,003	160,560,003
amortised cost:payables	-	_	<u>57,270,158</u>	<u>57,270,158</u>

The fair values of the financial assets and financial liabilities included in the level 2 and level 3 categories above have been determined in accordance with generally accepted pricing models based on a discounted cash flow analysis, with the most significant inputs being the discount rate that reflects the credit risk of counterparties. Due to the short-term maturity dates these amounts have not been discounted as the Directors are of the view that carrying or fare value approximates the fair value.

Credit risk

Credit risk is the risk of financial loss to the Authority if customers or counterparties to financial instruments fail to meet their contractual obligations, and it arises principally from the Authority's investments, receivables, and cash and cash equivalents. The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at 31 December 2021 was:

	2021	2020
	K	K
Cash and cash equivalents	147,571,682	128,697,453
Receivables	177,432,322	160,560,003
Maximum exposure to credit risk	<u>325,004,004</u>	<u>289,257,456</u>

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

22. Financial Instruments (Continued)

Liquidity risk

Liquidity risk is the risk of the Authority not being able to meet its obligations as they fall due. The Authority's approach to managing liquidity risk is to ensure that sufficient liquidity is available to meet its liabilities when due, without incurring unacceptable losses or risking damage to the Authority's reputation.

The Authority ensures that it has sufficient cash on demand to meet expected operating expenses through the use of cash flow forecasts.

At 31 December 2021

	1 - 3 Months K	3 months to 1 year K	1 – 5 years K	Total K
Liabilities Payables	788,875	9,757,913	20,739,097	31,285,885
Assets Bank and cash equivalents Receivables	147,571,682 101,434,255	<u>71,653,047</u>	4,345,020	177,432,322
Total	<u>249,005,937</u>	<u>71,653,047</u>	<u>4,345,020</u>	<u>325,004,004</u>
At 31 December 2020	1 - 3 Months K	3 months to 1 year K	1 – 5 years K	Total K
T * 1 *1*.*				
Liabilities Payables	<u>1,040,510</u>	<u>10,609,254</u>	45,620,394	<u>57,270,158</u>
	128,697,453 91,469,926	10,609,254 - 8,571,082	45,620,394 60,518,995	<u>57,270,158</u> 128,697,453 <u>160,560,003</u>

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

22. Financial Instruments (Continued)

Capital management

The primary objective of managing the Authority's capital is to ensure that there is sufficient cash available to support the Authority's funding requirements, including capital expenditure, to ensure that the Authority remains financially sound.

Currency risk

The Authority is exposed to foreign exchange risk arising from currency exposures, primarily with respect to the Dollar denominated contractor receivables and payables balances.

At 31 December 2021, if the Kwacha had strengthened/weakened by 5% against the US dollar with all other variables held constant, increase in net assets for the year would have been K341,667 higher/lower (2020: K840,752).

At 31 December 2021, if the Kwacha had strengthened/weakened by 5% against the dollar with all other variables held constant, increase in the Authority's financial instruments denominated in foreign currency for the year would have been as follows:

Financial assets	2021	2020
	K	K
United States Dollar (USD)	<u>2,763,921</u>	<u>483,733</u>
Financial liabilities		
United States Dollar (USD)	<u>544,052</u>	<u>927,905</u>

23. Related party transactions

The Rural Electrification Authority is a statutory body which was created by an Act of Parliament and is controlled by the Government. There are other entities that are related to the Authority through common directorships.

The Authority has balances with and had transacted with the following related parties during the year:

(a)	Grants from the Government	2021	2020
		K	K
	Rural Electrification Fund	307,199,557	384,659,333
	Rural Electrification Authority	13,168,722	9,876,544
	•	320,368,279	394,535,877
(b)	Directors expenses		
,	Board allowances	1,278,615	741,522
	Committee allowances	741,380	-
	Board facility visit	529,886	-
	Board Meeting refreshments	229,689	51,754
		2,779,570	793,276
(c)	Amounts due from related parties		
(-)	Grants receivable from the Government		
	Rural Electrification Fund	101,199,557	90,000,000
	Rural Electrification Authority		1.097.394
	y	101,199,557	91,097,394

Grants receivable from the Government represent grant income allocated to the Authority but had not yet been received as at year end.

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2021

23. Related party transactions (continued)

		2021	2020
		K	K
(d)	Amounts due to related parties		
	Amounts payable to the Government	<u>293,977</u>	<u>725,846</u>

Funds payable to the Government represent other income that is to be remitted to the Government by the Authority. This is income that is generated by the Authority that is not included as a revenue stream as per Rural Electrification Act No. 20 of 2003.

24.	Capital commitments	2021	2020
	•	K	K
	Opening balance	160,585,034	174,453,738
	Approved and/or contracted by the Directors during the year	<u>158,832,336</u>	<u>268,006,097</u>
	Subtotal	319,417,370	442,459,835
	Less amount written off	-	(132,036,092)
	Less: Contracts executed during the year (payments)	(202,043,642)	(149,838,709)
		117,373,728	160,585,034

Other commitments

The Authority has entered into cancellable contracts for the payments to which the Authority is committed during next financial year as shown below:

	2021	2020
	K	K
Not later than one year	<u>158,832,336</u>	<u>268,006,097</u>

25. Contingent liabilities

There was a legal case involving the Authority and its former employees which was running at the end of the financial year under review. The outcome of this matter may affect the financial statements as there could be a potential contingent liability created.

26. Overall assessment of impact of Covid -19 on preparation and presentation of the financial statements

The World Health Organization (WHO) declared the Coronavirus outbreak a global pandemic on 11th March, 2020 and instituted international measures to curb the spread of the disease by implementing robust measures to support early disease detection, isolation and supportive treatment of cases as well as contact tracing of the disease.

At national level Government through the Ministry of Health issued two Statutory Instruments (SIs) as a response to the Covid-19 pandemic. SI No. 21 of 2020 declared the Covid-19 2019 as a notifiable infectious disease in line with Section 9 of the Public Health Act. SI No. 22 of 2020, set out actions aimed at limiting the spread of Covid-19. The common ones included, social distancing, face masking, hand sanitizing, minimal grouping, and self-isolation.

The Board has carefully considered the Authority's unique circumstances and has assessed the financial impact of Covid-19 on financial reporting as low.

27. Events after the reporting date

There has not arisen since the end of the financial period, any item, transaction or event of a material and unusual nature likely in the opinion of the directors of the entity to affect substantially the operations of the entity, the results of those operations or the state of affairs of the entity.

RURAL ELECTRIFICATION AUTHORITY

APPENDIX I – DETAILED OPERATING STATEMENT

	Rural Electr	Rural Electrification Authority	Rural Elec	Rural Electrification Fund
	2021	2020	2021	2020
	X	K	X	K
Grant income				
Government appropriations	13,168,722	9,876,544	307,199,557	266,500,000
International donor funding	1		113,270,635	118,159,333
)	13,168,722	9,876,544	420,470,192	384,659,333
Other income				
Finance income	9,949,969	4,137,633	289,406	92,862
Foreign exchange gains	ı	153,006	ı	24,144,199
Other income	2,172,038	1,626,536	1,065,209	23,500
	12,122,007	5,917,175	1,354,615	24,260,561
Gross income	25,290,729	15,793,719	421,824,807	408,919,894
Staff and related costs				
Salaries and wages	7,815,631	8,616,216	35,975,806	16,701,384
Gratuity	1,965,850	2,834,572	9,211,453	5,119,130
Accrued leave pay	593,847	902,532	2,878,145	1,551,519
Medical scheme expenses	274,392	496,514	2,919,978	1,479,177
Staff welfare and benefits	4,238,107	3,675,707	2,487,374	5,085,642
Total staff costs	14,887,827	16,525,541	53,472,756	29,936,852

RURAL ELECTRIFICATION AUTHORITY

APPENDIX I – DETAILED OPERATING STATEMENT (CONTINUED)

	Rural Electrification Authority	on Authority	Rural Electrification Fund	cation Fund
	2021	2020	2021	2020
	M	K	K	K
Administrative and other expenses				
Rental expenses	ı	ı	4,700,968	4,885,264
Fuel, lubricants and oils	772,006	677,258	717,382	1,205,232
Audit fees	ı	069	976,741	1,132,335
Communications	58,967	207,825	738,544	1,188,958
Training, workshops and seminars	ı	3,972	1,054,283	455,033
Board of Directors Allowances/Facility Visit	ı	704,112	2,779,570	741,522
Other administrative costs	8,850	201	1,465,089	1,662,412
Maintenance of equipment and buildings	45,315	79,896	123,344	301,775
Stationery, printing and publications	99,333	5,855	408,284	241,501
Travel, transport and subsistence	969'9	11,018	24,850	7,519
Carried forward	991,166	1,690,827	12,989,055	11,821,551

APPENDIX I – DETAILED OPERATING STATEMENT (CONTINUED)

	Rural Electrification Authority	ion Authority	Rural Electrification Fund	cation Fund
	2021	2020	2021	2020
	K	K	K	K
Administrative expenses brought forward	991,167	1,690,827	12,959,144	11,821,551
Cleaning and materials	467,906	196,710	78,490	57,885
Security charges	ı	ı	593,596	173,514
General insurance	I	I		1
Bank charges	8,646	13,740	144,258	54,554
Motor vehicle repairs	100	ı	1,650,641	1,069,236
Office refreshments	513,541	193,902	65,993	44,845
Board meeting expenses	ı	47,021	229,689	51,754
Legal fees expense	ı	16,184	1,099,665	13,299,767
Staff Subscriptions	44,693	1	656,148	241,499
Exhibition and publicity	ı	59,584	1,283,833	1
Electricity and water	32,349	ı	27,610	29,315
Impairment costs	I	86,614	30,413	1
Computer software and consumables	2,530	3,071	756,578	316,191
Consultancy fees	ı	ı	141,968	ı
Committee allowances	ı	ı	ı	1
Software and licenses	I	I	1,008,370	662,048
Procurement management	ı	ı	2,477,536	261,240
Foreign exchange losses			6,833,337	7,295,436
Total administrative and other expenses	2,060,932	2,307,653	30,037,267	35,378,835
Project expenses	535	7,200	27,119,223	15,693,259
Depreciation	5,658,513	4,750,534	2,218,585	1,626,126
Surplus/(deficit) for the year	2,682,924	(7,797,209)	308,976,956	326,284,822

RURAL ELECTRIFICATION AUTHORITY

APPENDIX I I- ANALYSIS OF RURAL ELECTRIFICATION PROJECTS

PROJECT NAME	DISTRICT	PROVINCE	TECHNOLOGY	COST	STATUS
Mwenzo Nawaitwika Shemu Musanya	Nakonde Nakonde Chinsali	Muchinga Muchinga Muchinga	Grid Grid Grid	ZMW 871,731.30 ZMW 1,841,106.59 ZMW 2,708,542.23	Completed Completed Completed
Nangweshi	Sioma	Western	Grid	ZMW 3,570,920.82	Completed
Sandwe Jembo Miponda-Shikamushile Lambwe Chomba	Petauke Pemba Samfya Chiengi	Eastern Southern Luapula Luapula	Grid Grid Grid Grid	ZMW 5,563,465.91 ZMW 3,350,474.29 ZMW 3,523,448.59 ZMW 4,500,815.30	Completed Completed Completed Completed
Luembe Mutono Chiseta Mbaso	Nyimba Nchelenge & Mwense & Mansa	Eastern Luapula	Grid Grid	ZMW 4,272,151.99 ZMW 6,956,895.88	Completed
Kalungu Sansamwenjee	Isoka	Muchinga	Grid	ZMW 7,253,434.12	Completed
Lupososhi	Luwingu & Lupososhi	Northern	Grid	ZMW 7,390,774.62	Completed
Luano Phase I Luswishi Farm Block	Luano Lufwanyama	Central Copperbelt	Grid Grid	ZMW 5,496,175.15 ZMW 9,019,854.61	Completed Completed
Lwela-Milambo	Milengi & Chembe	Luapula	Grid	ZMW 7,229,971.67	Completed
Makunka	Livingstone	Southern	Grid	ZMW 1,864,035.67	Completed

APPENDIX I I- ANALYSIS OF RURAL ELECTRIFICATION PROJECTS

Completed Completed	Completed Completed Completed Completed	Completed	Completed Completed
ZMW2,624,477.78 ZMW7,213,840.48	ZMW 1,327,777.53 ZMW 690,172.07 ZMW 876,376.58 ZMW 922,897.62	ZMW 1,492,920.00	ZMW 4,769,473.64 ZMW 1,397,116.64
Grid Grid	Grid Grid Grid	Grid	Grid Grid
Lusaka Southern	Southern Southern Copperbelt Central	Eastern	Central Central
Rufunsa Kalomo	Mazabuka Mazabuka Ndola Mkushi	Petauke	Itezhi Tezhi Chitambo
Nangenya Dundumwenzi	Hanjaalika Manyaana Sakania Fiwila Mission	Ukwimi	Kaingu-Iyanda Chitambo

ZMW96,728,851.08

SUBTOTAL (2018 GEP) GRID

RURAL ELECTRIFICATION AUTHORITY

APPENDIX I I- ANALYSIS OF RURAL ELECTRIFICATION PROJECTS

PROJECT NAME	DISTRICT	PROVINCE	TECHNOLOGY	COST	STATUS
Nkeyema Zonal Hospital Nkeyema	Nkeyema	Western	Grid	ZMW 598,798.54	Completed
Lupani	Chibombo	Southern	Grid	ZMW 187, 303.87	Completed
Chisuta	Mazabuka	Southern	Grid	ZMW 705, 563.11	Completed
Shakeemba	Shibuyunji	Central	Grid	ZMW 562,426.91	Completed
Lufubu	Lupososhi	Northern	Grid	ZMW 1,749,933.56	Completed
Shamilimo Munyati	Shibuyunji	Central	Grid	ZMW 2,326,394.45	Completed
SUBTOTAL (2020 GEP) GRID	GRID			ZMW6,130,420.44	

APPENDIX I I- ANALYSIS OF RURAL ELECTRIFICATION PROJECTS

PROJECT NAME	DISTRICT	PROVINCE	TECHNOLOGY	COST	STATUS
Kasanjiku Mini Hydro Project (0.64MW)	Mwinilunga	North-Western	Mini Hydro	USD\$ 8,698,932.85	Completed
Moyo Solar Mini Grid	Pemba	Southern	Solar Mini Grid	USD\$244,182.73	Completed
Ngabwe Solar Mini Grid	Ngabwe	Central	Solar Mini Grid	USD\$288,942.08	Completed
Chilubi Mainland Sola	Chilubi	Northen	Solar Mini Grid	USD\$242,193.79	completed
Mini Grid SUBTOTAL (2020	PROJECTS)			USD\$9,474,251.45	
Lunga Solar Mini Grid 300kWp	Lunga	Luapula	Solar	ZMW5,011,756.42	In progress
PROJECT NAME	DISTRICT	PROVINCE	TECHNOLOGY	COST	STATUS
Kaputi	Chisamba	Central	Grid	ZMW4,346,866.08	Completed
Keembe	Chibombo	Central	Grid	ZMW1,971,342.97	Completed
Mpanta	Samfya	Luapula	Grid	ZMW5,772,492.11	In progress
Salamano	Mufulira	Copperbelt	Grid	ZMW 775,516.05	Completed
Muchinshi/Mutenda	Chingola	Copperbelt	Grid	ZMW 6,695,416.09	In progress
Shinengene - Northern Resettlement	Kalumbila	North-Western	Grid	ZMW 10,142,375.45	In progress
Matunga	Katete	Eastetrn	Grid	ZMW 1,041,323.69	In progress

In progress	In progress In progress In progress In progress Completed
ZMW 2,070,810.82 ZMW 1,822,191.80 ZMW 1,144,422.71 ZMW 2,105,082.02 ZMW 8,686,315.51 ZMW 872,077.35 ZMW 1,782,753.80	ZMW 7,518,736.53 ZMW 5,580,201.41 ZMW 1,026,304.98 ZMW 7,851,093.66 ZMW 1,878,845.61
Grid Grid Grid Grid Grid Grid	Grid Grid Grid Grid Solar
Eatern Muchinga Muchinga North-Western North-Western Copperbelt Muchinga	Southern Southern Eastern Lusaka
Petauke Kanchibiya Mpika Mwinilunga Mwinilunga Kasumbalesa Nakonde	Gweembe Namwala Nyimba Petauke Chongwe
Ndewe-Simambumbu Kopa Mufubushi Kanongesha Kanyama Ming'omba Katongo-Chilolwa	Chipepo Kantengwa James Zuze Kampekete





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