



# **Energy Utility Corporation Ltd Annual Report and Financial statements 2020/2021**



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# **2 EXECUTIVE SUMMARY**

- In technical operations:

During the FY 2020/2021, **installed capacity** was increased from 228.418MW to **238.368MW** composed by domestic capacity of 220.27MW and import & shared capacity of 18.1MW.

Increment of **9.95MW** was noticed during this fiscal year. New power plant was commissioned, Giciye III, with installed capacity of 9.8MW and Nyirabuhombohombo was increased from 0.5MW to 0.65MW after its rehabilitation and upgrading. Commissioning of these two hydropower plants was conducted in December 2020.

Based on energy and capacity mix during the FY 2020/2021, hydropower plants contribution is of 44% (104.628MW) as capacity and 52% (494,397,431.17kWh) as generation, Thermal power plants contributed 25% (58.8MW) as capacity and 10% (92,711,624.00kWh) as energy generation, methane gas plants contributed 25% (29.79MW) as capacity and 22% (206,836,578.84kWh) as energy generation, peat fired power plants contributed 6% (15MW) as capacity and 3% (30,577,401.03kWh) as energy production, solar power plants contributed 5% (12.05MW) as capacity and 2% (18,059,285.39kWh) as energy generation while import & shared power plants contributed 8% (18.1MW) as capacity and 12% (112,071,628.27kWh).

By considering ownership and total installed capacity and total generation, **IPPs** Power plants contribution is of **121.052MW(50.78%)** and **493,755,909.12kWh(52%)**, **REG/EUCL** maintained and operated power plants' contribution is of **99.216MW(41.62%)** and **348,826,411.31kWh(37%)** while **imports & shared** generation contribution is of **18.1MW(7.59%)** and **112,071,628.27kWh(12%)**.

Energy generation was increased from 872,646,142.02 kWh (872.65GWh) for FY 2019/2020 to 954,653,948.70kWh (954.65GWh) for 2020/2021 with total increase of 82,007,805.98kWh (82.01GWh) equivalent to 9.4% if compared to 2.16% of 2019/2020. Energy exported during the FY 202/2021 is of 7,236,006.8kWh (7.24GWh) and generation for national use is of 947,417,941.9kWh (947.42GWh).

The main highlights of power plants performance in 2020/2021 are the following:

- Hydropower plants (33 Power Plants):

The performances of four power plants, Nyamyotsi I&II, Janja and Nshili, were zero due the fact that all were completely off due to different reasons.

Performance of Seven hydropower plants named Agatobwe, Gaseke, Rukarara V Mushishito, Nyirabuhombohombo, Nyirantaruko, Nyabahanga, and Rubagabaga was below 80% because of different reasons such as prolonged effect of May 2020 heavy rain, commissioning and testing that took place after a half year and weather conditions.

Twenty-two (22) power plants have performance ranging from 80% to 195%.

- Peat Power Plants:

Performance of Gishoma is of 27% because it operates only during dry season

- Thermal power plants:

Thermal power plants are of emergency use and their performance is based on specific fuel consumption.

- Methane gas power plant:

KP1 is not operational since April 2016 because of environment issue while Kivuwatt performance is always above 100% since its COD date.

In last three years the contribution of **energy produced from diesel** (thermal source) has been **dramatically decreased** from 18.6% in the year of 2018/2019 to 15.6% in 2019/2020 then to **9.7% in 2020/2021**. The energy produced from diesel (thermal source) reduced to 92.7 GWh from 135.89 GWh equivalent to 31.78% decrease from 2019/2020.

The **annual peak** was observed in April 2021 is **164.4MW** while it was 151.0 MW in February 2020 for the FY 2019/20. The demand growth this year is 8.8% while it was 2.8% for the year of 2019/2020.

The transmission network availability has been improved from 99.37% in the year of 2019/2020 to 99.41% in the year of 2020/2021.

The total network collapse reduced from 4 blackouts in 2019/20 to 1 blackout in 2020/201.

The transmission network length as of June 2021 is 944.39 km for Transmission Lines (both 110kV and 220kV) and 37 Main Substations

Distribution network is mainly made by:

- Medium voltage lines: 9,944.3 km
- Low Voltage lines: 17,389.6 km
- Distribution transformers: 6,093 transformers

The Medium Voltage network has increased by 738.5 km (7.43%), it means from 9205.8 km as of end June 2020 km to 9,944.3.56 km while the low voltage lines added 1,280.7 km (7.36%), from 16,108.9 km as of end June 2020 to 17,389.6 km by June 2021.

By the end of June 2021, a total of 6,093 distribution transformers were installed compared to 5479 distribution transformers installed by June 2020. The distribution transformers have increased by 10.08% (614 transformers).

*Transformer failure rate*: During financial year 2020/2021, **147 transformers representing 2.39%** of installed transformers were damaged and replaced.

The distribution department implemented customer projects such as re-location of infrastructure, upgrade existing infrastructure, transformers maintenance, provision of standby/emergency generators, technical support & supervision, etc. This year 146 different customer's projects were executed, where 92% have been completely executed and 8% are ongoing at different percentage of progress

During the FY 2020/2021, the entire country distribution network performance was improved with the System Average Interruption Duration Index (SAIDI) of **18.2 hours per year** and the **average number of interruptions that a customer experienced (SAIFI)** of **44 times** per year.

Total Losses (Technical and non-technical losses): the average total power losses for this FY 2020/2021 are evaluated to 19.26 compared to 19.12% in 209/20 and 19.39% in 2018/19.

The third phase of the reinforcement of Kigali distribution network (8 Switching Cabins) and the construction & rehabilitation of MV Lines (37km) for Distribution Network in Kigali, all financed by World Bank through the RESSP program, has progressed steadily amid the delays caused by continued lockdown due to COVID 19 pandemic. The overall progress of the for the engineering, procurement and construction of the 8 switching cabins stands at **64.86%** as of end of June 2021, while the engineering, procurement and construction of the 37km of MV lines in Kigali stands at **57.76%**. The engineering procurement and construction works of the 8 Switching stations is being executed by TAKOAKA Engineering Co. Ltd while the engineering, procurement and construction Network in Kigali is being executed by BURHANI Engineers Ltd.

The project for the construction of Nasho substation and associated 30kV line from Kabarondo substation in the Eastern province to Nasho Irrigation project has progressed with some delays caused by uncertain lockdowns due to the spread of the covid 19 pandemic. The project overall progress stands at 75.5% as of end of June 2021 compared to the **39%** as of end of end of June 2020.

During this fiscal year 2020/2021, EUCL was engaged in the implementation of Customer Projects where 42 projects equivalent to Rwf 1,554753,089 were completed and 20 projects equivalent to 2,648,538,514 were ongoing.

During this fiscal year 2020/2021, 366 applications under doing business framework were received. Among them 155 projects were completed, 72 projects were ongoing while others were not ready or not compliant.

- In corporate Services:

The activity of securing land titles was key activity in 2020/2021 where total land plots identified were 386 plots. Three groups that will change as the assignment continues to be worked on are as follow: Targeted Land Titles with 148 plots, Targeted MoU with 127 plots and Plots of Special Categories with 111 plots. By the end of the FY 2020/2021, we had registered 18 land titles and 40 signed collaboration agreements for safeguarding the electricity infrastructures.

The electricity store performed as follow: **The Opening Balance as 1<sup>st</sup> July 2020 was Rwf 5.624 billion.** In 2020/2021, the materials received was equivalent to Rwf 10 billion and the issued materials was equivalent to Rwf 9.9 billion. The **Stock closing balance as of 30<sup>th</sup> June 2021 was Rwf 5.698 billion.** 

The fleet size at the beginning of the 2020/2021 FY was 162 motors and vehicles combined then 11vehicles and 12motorcycles were bought and the fleet size went up to 185. Seven (7) old vehicles were disposed, and the fleet size decreased the number from 185 vehicles and motors to 178 in total. The 7 vehicles that were disposed are now in process of being auctioned. All company vehicles were insured by BK General Insurance Company Ltd from 29/5/2020.

The 59 tenders planned in the Fiscal Year 2020-2021 have been executed at 100%.

- Legal Services

*This year's data reveal a marked decrease in Company litigation from 47 in 2019-2020 to 33 in 2020-2021 equivalent to a drop of 29.8* 

*The insurance litigation raised at 266.6% from 6 cases in 2019-2020 to 22 cases in 2020-2021 while other litigation dropped at 73.1%.* 

In all 33 cases filed by and against the Company, only 14 were decided by courts while other 19 wait hearing on merit. In decided cases, the Company won 10 and lost 4 cases. This brings a winning ratio to 71.4% and losing ratio to 28.6%. In won cases, the Company was awarded 770,974,739 Frw while it lost 76,909,660 Frw in lost cases.

- *ICT* 

In the ICT Unit of EUCL, the year 2020-2021 was mainly marked by establishment and review of ICT guides being establishment of ICT strategic plan and road map of activities for the next 5 years and Review ICT policy and procedure manuals.

There was an implementation of network redundancy by setting up new site for Data recovery site (yet to be tested and commissioned), Process automation and implementation of integrations of IBMS with legacy and third-party systems.

There was an establishment of an integration with RRA, Banks and online portal (Web Self-services).

There was an improvement of ICT support and maintenance of ICT services across all department/units.

- In Commercial operations:

The total number of customers on prepaid is 1,267,702 and postpaid 3263 (including 44 customers moved from Prepaid to Postpaid) making a general total of 1,270,965 customers by end June 2021 compared to 1,092,081 by end June 2020.

New electricity connections realized were 178,884 connections during the period of 2020-2021.

*Electricity billed* for both prepayment and post payment, including exports to Uganda through Cyanika-Kisoro consumed 766,606,204.22 kWh.

During the fiscal year 2020/2021, the **Utility billed in total**, including Uganda Export & works, **Rwf 157.906 billion** compared to Rwf 137.91 billion bills in 2019/2020 which represents **14.49%** increase.

The total collection on prepayment, postpayment and works were **Rwf154,361,119,629** compared to Rwf 157,906,289,288 of total bills, the collection rate was 98%.

During the period of fiscal year 2020-2021 the Energy Efficiency and Revenue Protection unit in its activities inspected 7,337 customers and discovered the following irregularities: 58 tempered meters, 31 faulty meters, 3 Unused meters, 9 Stolen meters, 60 thefts cases and 66 Complaints

handed to RIB for further investigation and prosecution. The total amount recovered from Fines & regularization bills is equivalent to Rwf 134,278,833. The total energy loss identified is equivalent to 218,105.64 kWh.

The Revenue Protection Program (RPP) Funded by the World Bank has been implemented and 2000 smart meters have been installed at the premises of Postpaid Customers. An additional 1000 smart meters has been acquired from the World Bank to cover the remaining customers. Currently the automated Metering System (MDM) is now linked to the billing system (CMS) and results yielded will enable data from customers' meters to be pushed into Customer Management System.

During the FY 2020/2021, a total of **32,933 meters were replaced** compared to 32,294 meters replaced in 2019/2020.

#### - In Human Resources:

Through the financial year, the operations were affected by measures to curb the spread of Covid 19 where the company staff adhered to the GoR measures including lockdowns. The Company complied with the GoR measures to stop the spread of COVID-19; number of covid 19 infection were recoded including subsequent one (1) death.

EUCL **Organizational Structure review was approved in July 2020** following previous approvals of provisional Organizational Structure August 2015, its first review in June 2016, and the second review in May 2017.

By June 2021, the EUCL permanent headcount decreased to 943 staff from 989 as of 30<sup>th</sup> June 2020. The were 183 females representing 19% and 760 males representing 81%.

During the FY 2020/2021, due to Gross Misconduct, 9 staff were dismissed compared to 2 dismissal during the FY 2019/2020, three (3) had been temporally suspended (Lay off) and one (1) staff demoted due to the underperformance.

During the FY 2020/2021, *five (5) retirement* from Commercial Operations, Generation, Transmission compared to 4 retirements in the previous year.

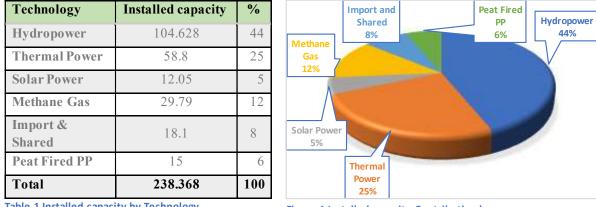
The company registered **26 resignations** compared to 25 resignations in the previous fiscal year.

To keep the level of skills required to serve efficiently to the company though the Covid 19 constrains, 71 staff were trained in different fields compared to 341 staff trained in 2019-2020.

#### **GENERATION PERFORMANCE** 3

#### **Installed Capacity** 3.1

The installed capacity at the end of June 2021 increased to 238.368MW from 228.418MW in the previous FY 2019/2020 composed by domestic capacity of 220.27MW and import & shared capacity of 18.1MW (Refer to Annex 1). The increment of 9.95MW was noticed during this fiscal year. This capacity is from the commissioning of Giciye III, with installed capacity of 9.8MW and Nyirabuhombohombo which was increased from 0.5MW to 0.65MW after its rehabilitation and upgrading. Commissioning of these two hydropower plants was conducted in December 2020.



The table below shows the contribution in installed capacity by source type.

Table 1 Installed capacity by Technology

Figure 1 Installed capacity Contribution by source

#### 3.2 **Domestic Production + Import + Export (Gwh)**

Total annual production for the fiscal year 2020/2021 is of 954,653,948.70kWh (Refer to Annex 1). while exported energy to Uganda, DRC and SINELAC (Mururu II or Rusizi II) is of 7,236,006.8kWh. National requirement during 2020/2021 fiscal year is of 947,417,941.9kWh. Average daily generation of the fiscal year 2020/2021 is of 2,615,490.3kWh.

Production in 2020/201 increased from 872,646,142.02kWh to 954,653,948.70kWh of 2019/2020 with total increment of 82,007,805.98kWh equivalent to 9.4% compared to 2.16% of 2019/2020.

Energy (GWh)	2016-	2017-	2018-	2019-	2020-
	2017	2018	2019	2020	2021
Domestic production	633.2	699.8	758.4	773.24	842.58
Import	22.9	31.5	31.9	30.22	29.74
Shared	56.0	50.2	63.9	69.15	82.3
Export	4	4.3	5.0	5.86	8.67
Domestic consumption	708.1	777.3	849.1	866.98	945.99
Total Generation (Domestic & Import)	712.1	781.4	854.1	872.62	954.65
Increase (%)		9.7%	9.4%	2%	8.59%

Table 2 Five years increments of energy generation

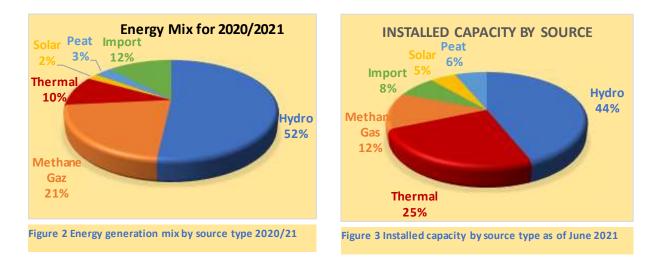
	Hydro	Methane	Thermal	Solar	Peat	Import	Shared	Total
2015-2016	271.9	114.5	174.5	13.9	1.4	56.9	18.9	652.1
2016-2017	277.2	197.6	129.6	14.5	14.3	22.9	56.0	712.1
2017-2018	333.8	195.0	138.7	16.9	15.3	31.5	50.2	781.4
2018-2019	337.5	213.1	158.7	18.1	31.0	32.0	63.9	854.2
2019-2020	387.0	213.6	135.9	17.7	19.0	30.2	69.2	872.6
2020-2021	494.4	206.8	92.7	18.1	30.6	29.7	82.3	954.7

#### 3.3 Energy Generated by Source of Energy (GWH)

Table 3 energy generated by source from 2015-2021

The energy produced from diesel (thermal source) reduced to 92.7 GWh from 135.89 GWh equivalent to 31.7831% decrease from 2019/2020 (*plant details are provided under annex 2*).

pThe chart below, illustrates the contribution in energy mix of each source of energy compared to the installed capacity:

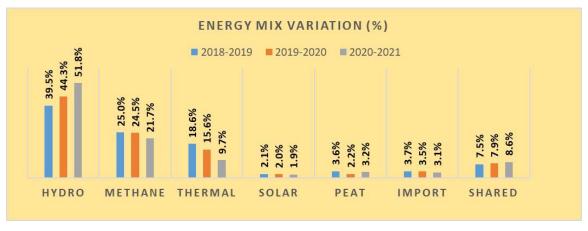


#### 3.4 Contribution of each generation technology (%)

	Hydro	Methane	Thermal	Solar	Peat	Import	Shared
2016-2017	38.9%	27.7%	18.2%	2.0%	2.0%	3.2%	7.9%
2017-2018	42.7%	25.0%	17.8%	2.2%	2.0%	4.0%	6.4%
2018-2019	39.5%	25.0%	18.6%	2.1%	3.6%	3.7%	7.5%
2019-2020	44.3%	24.5%	15.6%	2.0%	2.2%	3.5%	7.9%
2020-2021	51.8%	21.7%	9.7%	1.9%	3.2%	3.1%	8.6%

 Table 4 Contribution of each power generation technology (%)

It is seen that in last three years the contribution of energy produced from diesel (thermal source) has been dramatically decreased from 18.6% in the year of 2018/2019 to 15.6% in 2019/2020 then to 9.7% in 2020/2021, and the contribution of cheaper power plant (Hydro) has been increased. This was due to the increase in use of hydro power plants and the commissioning of new hydro power plant like Giciye 3, Nyirantaruko, Rwaza, etc.



The graphical representation is as follow:

Figure 4 Energy mix variation (2018 - 2021)

#### 3.5 Energy Generated by plants' owners

Based on ownership of power plant, IPPs power plants contribution is 52% (493,755,909.12kWh), GoR owned power plants contribution is of 36% (348,826,411.31kWh) while import & shared contribution is of 12% (112,071,628.3kWh).

Source of Generation	Generated Energy (kWh)						
	FY 2019/2020	FY 2020/2021	% (FY 2020/2021)				
IPPs Power Plants	473,516,095.64	493,755,909.12	52%				
GoR Power Plants	299,740,392.00	348,826,411.31	36%				
Import + Shared	99,375,634.38	112071628.3	12%				
Total Generation	872,632,122.02	954,653,948.70	100%				

The table below presents the generation by category:

 Table 5 Energy Generated by plants' owners

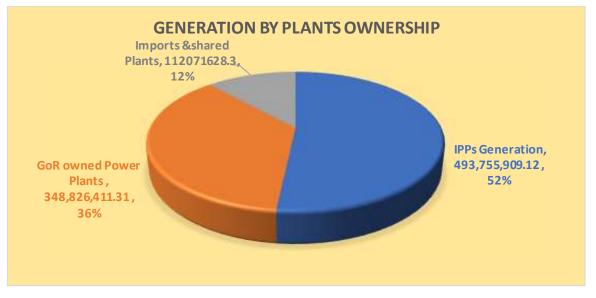


Figure 5 Generation shares by plant owner (GoR Vs IPPs)

## 3.6 **Power Plants Performance Indicators (2020/21)**

The main highlights of power plants performance in 2020/2021 are the following (*details are provided under annex 4*):

- Hydropower plants (33 Power Plants)

The performances of four power plants, Nyamyotsi I&II, Janja and Nshili, were zero due the fact that all were completely off due to different reasons.

Performance of Seven hydropower plants named Agatobwe, Gaseke, Rukarara V Mushishito, Nyirabuhombohombo, Nyirantaruko, Nyabahanga, and Rubagabaga was below 80% because of different reasons such as prolonged effect of May 2020 heavy rain, commissioning and testing that took place after a half year and weather conditions.

Twenty-two (22) power plants have performance ranging from 80% to 195%.

- Peat Power Plants

Performance of Gishoma is of 27% because it operates only during dry season

- Thermal power plants

Thermal power plants are of emergency use and their performance is based on specific fuel consumption.

- Methane gas power plant

KP1 is not operational since April 2016 because of environment issue while Kivuwatt performance is always above 100% since its COD date.

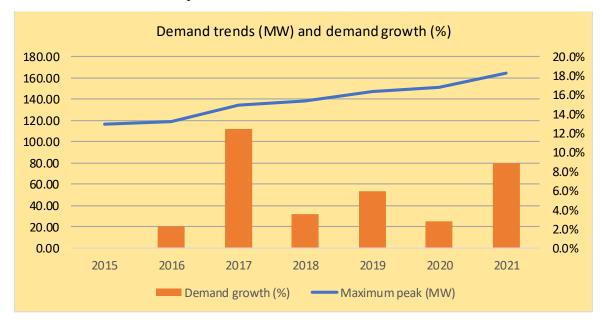
#### 3.7 Monthly Peak Trends (MW)

The annual peak was observed in April 2021 is 164.4MW while it was 151.0 MW in February 2020 for the FY 2019/20. The demand growth this year is 8.8% while it was 2.8% for the year of 2019/2020.

Year/month	2015	2016	2017	2018	2019	2020	2021
Jan	98.6	112.8	119	123.3	139.5	142.7	147.9
Feb	101	113.3	115.8	128.2	140.6	151	150.9
Mar	100.6	117.4	118.6	127.3	137	148.4	152
Apr	99	116.1	118.1	125.6	139.3	125.6	164.4
May	100.8	119.1	124.4	128.6	140.5	136.3	154.4
Jun	100.8	118	124.6	138.7	139.7	138.4	162.5
Jul	100.8	113.2	131	137.8	145.1	145	
Aug	105.3	115.4	124.6	136.6	145.5	146.6	
Sep	107.3	118.9	125.5	136.6	144.2	143.8	
Oct	116.4	117.7	125.6	138.1	146.9	147.8	
Nov	110.5	114.6	125.9	135.9	143.9	154.8	
Dec	111.7	116.5	133.9	135.8	142.3	149.6	
Maximum peak	116.4	119.1	133.9	138.7	146.9	154.8	164.4

Table 6 Monthly peak demand (2015 - 2021)

The chart below shows the peak demand evolution versus the annual increase as follow:





# **4 OPERATIONS AND MAINTENANCE OF TRANSMISSION SYSTEM**

#### 4.1 Overview of Transmission Operations

This section describes the achievement of different units of the department of Transmission Operation and Maintenance (all activities of Dispatch and National Control Center unit, Transmission Maintenance unit and Protection & SCADA unit).

The mandate of D&NCC is to monitor the electric power system using the SCADA/EMS Management System and manage all Operations and Maintenance of whole Transmission System in economic way. Due to time constraints in the decision-making process, the operators in the National Control Centre have full authority for implementing any measures to prevent malfunctions from spreading or complete system loss. The team works 24 hours a day throughout a year to insure at every second the generation and demand is balanced and provide an uninterrupted supply of electrical energy. This report demonstrate how network was performed during the year of 20120/2021, the evolution of Installed capacity and national demand growth. Various activities conducted in SCADA and communication section are also described in this report.

The main objective of power system protection is to isolate a faulty section of electrical power system from rest of the live system so that the healthy portion can function satisfactorily without any severe damage due to fault current. This report also describes activities performed by Network Protection Team with the objective of delivering a high level of technical expertise to EUCL, especially in power system protection (alarm System optimization, protection related matters handling such as fault analysis, protection coordination, and protection design etc...).

Transmission Maintenance Unit mainly covers Rwanda High Voltage Transmission Network maintenance (maintenance of high voltage transmission lines and HV substations). The transmission network comprises of 944.39 km of Transmission Lines (both 110kV and 220kV) and 37 Main Substations.

Description	2019/2020	Total Increment (2020/2021)	Network Status 2020/2021	% Growth Rate
Transmission (km)	937.0	7.4	944.39	0.78%

Table 7 Transmission network extension (2019 - 2021)

Operating high voltage electrical system can cause accident or even deaths; therefore, safety is key requirement in every activity in the network. Safety activities in the fiscal year 2020-2021 covered different activities including Supervision, inspection, training, reception of Safety signs and their installation in 73 EUCL sites (substations, Branches & Power plants).

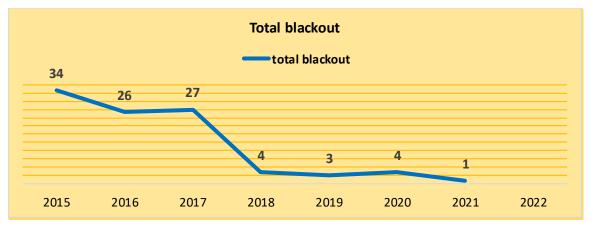
Generally, the image of safety was good according to zero recorded incidents nor critical near misses to EUCL staff all over the network activities on the side of transmission assets; except some cases observed on safety noncompliance where one contractor staff do not wear protective equipment in some work site.

### 4.2 Network Stability (Blackout reduction)

Transmission system is equipped with protection scheme with the aim of avoiding the unpredicted events and power outages, power system is still encountering emergency and mal-operation situations. The most severe emergencies put the whole or at least a part of the system in danger. If the emergency is not well managed, the power system is likely to have cascading failures that might lead to a blackout.

The ability of transmission network to maintain stability and to ensure continuous supply of electrical power to customers in the event of a disturbance is of critical importance. Causes of power system blackouts include transmission line tripping or overloading, control and protection systems mal-operation, lightning strikes on power systems equipment, poor maintenance, human error, voltage collapse, equipment failure, quick-frequency declines, and others. Below is the table showing how blackout has been reduced from 2015 to today.

The chart below illustrates how the Management managed to stabilize the network by reducing the occurrence of total network collapse:





The total network collapse reduced from 4 blackouts in 2019/20 to 1 blackout in 2020/201

#### 4.3 Transmission Network Availability

Transmission Network availability is the amount of uptime in a transmission network system over a specific time interval. Uptime refers to the amount of time a network is fully operational. Network availability is measured as a percentage and is monitored to ensure the service being provided is consistently kept running for end-users. The transmission network availability is mainly affected by power interruptions due to utility outages or electrical faults. EUCL Transmission network availability has been improved from 99.37% in the year of 2019/2020 to 99.41% in the year of 2020/2021.

The table below shows quarterly and annual measurement of transmission system availability for the year of 2020/2021.

TRA	ANSMISSION LINE	AVAILA	BILTY 2020-	2021	
		Outage	e duration min	1,108	
Q1		Days	Hours	Difference	Availability in %
	Period duration	92	132480	131,372	99.164%
	•	Outage	e duration min	1,009	
Q2		Days	Minutes	Difference	Availability in %
	Period duration	92	132480	131,471	99.238%
		Outage	e duration min	850	
Q3		Days	Minutes	Difference	Availability in %
	Period duration	90	129600	128,750	99.344%
		Outage	e duration min	104	
Q4		Days	Minutes	Difference	Availability in %
	Period duration	91	131040	130,936	99.921%
		Outage	e duration min	3071	
An		Days	Minutes	Difference	Availability in %
nu	Period duration	365	525600	522,529	99.416%
al					

Table 8 Transmission network availability

The major disturbances were recorded as follow:

Major d	Major disturbance (Transmission Line Collapse)				
	Number of TL tripping	Average Restoration time (min)			
Q1	40	27			
Q2	41	24			
Q2 Q3	39	13			
Q4	13	6			

Table 9 Major disturbance (Transmission Line Collapse)

#### 4.4 SAFETY MANAGEMENT PERFORMANCE

Safety awareness was fully implemented before and during different sites activities which resulted in the below incident records

Nº	SAFETY PARAMETERS	RECORDS
1	Total Man Hours Worked [Monthly Average]	26,752.50
2	Number of Near misses	0
3	Number of Incidents	0
4	Number of First aid Cases	0
5	Number of Lost Time cases	0
6	Lost Time Incidents (Hours)	0
7	Number of Fatality/Death	0

Nº	SAFETY PARAMETERS	RECORDS
8	Restricted Workday Case (RWC)	0
9	Medical Treatment Case (MTC)	0
10	Property Damage (PD)	0
11	Motor Vehicle Accident (MVA)	0
12	Fire Incident (FI)	0
13	Environmental Incident	0
14	Total Recordable Occupational Illness (TROI)	0
15	Total Number of Recordable Injuries/Cases (TNRI)	1
16	Job Transfer (JB)	0
17	Number of Restricted days (NRWD)	0
18	Total Number of Lost Workdays (TNLWD)	0
19	Safe Man Days (SMD)	35,670
20	Man Hours Since Last Time Incident (MSLTI)	321,030
21	Total Recordable Incident Rate (TRIR)	7.49
22	Lost Time Cases Frequency Rate (LTCFR)	0
23	Lost Time Incident Rate (LTIR)	0
24	Total Recordable Occupational Illness Frequency (TROIF)	0
25	DART Rate (Days Away/Restricted or Job Transfer Rate)	0

Table 10 Record of incident from different sites

The observed one single incident recorded in the fiscal year 2020-2021 resulted in the hand permanent injury of a reserve force who have been working together with EUCL staff during construction of a transmission tower.

#### **CHART AND INTERPRETATION**

Parameters	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
TRIR	0.00	0.00	0.00	7.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industry	25	25	25	25	25	25	25	25	25	25	25	25
Standard												
(TRIR)												

 Table 11 Table of Safety industry standard of Total Recordable Incident Rate

Safety industry standard of Total Recordable Incident Rate: the indicated safety industry standard for big companies was proven to be at 25 as it is shown in the above table.

### **INCIDENT CHART OF THE RECODED INCIDENT RATE**



Figure 8 Chart of Safety industry standard of Total Recordable Incident Rate

#### Interpretation:

For every 100 employees in transmission department, **7.49** employees have been involved in a recordable work-related injury or illness in a fiscal year 2020-2021.

In summary, the TRIR of  $7.49 \le 25$  indicates that the department is working in the acceptable range according to the safety industry standards.

# 5 **<u>POWERLOSSES</u>**

**Total Losses (Technical and non-technical losses):** the average total power losses for this *FY* 2020/2021 are evaluated to 19.26% <sup>1</sup>compared to 19.12% in 2019/20 and 19.39% in 2018/19 (refer annex 6).

The average total power losses are calculated as follow:

$$Losses = \frac{(DG + I) - (Pre + Po + Ex)}{DG + I}$$

Where:

- DG: Domestic Generation; I: Import Pre: Prepaid Energy
- Po: Postpaid Energy
- *Ex: Export*

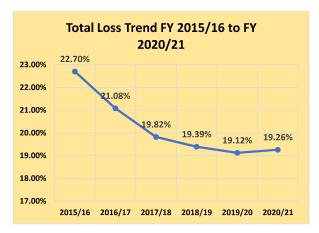


Figure 9: Trend of total energy losses

<sup>&</sup>lt;sup>1</sup> The total energy billed was 770,768.56 kWh and was obtained from the sum of 766,606,204.22 kWh commercial bills plus the export counted in terms of energy compensation and Nasho irrigation equivalent to 4,162,359.24 kWh.

# **6** TECHNICAL KEY PROJECTS AND NETWORK PERFORMANCE

#### 6.1 Reinforcement of Kigali distribution network (8 Cabins)

The progress of the project as of 30<sup>th</sup> June 2021 was as follow: The Overall Progress of this project is at 64.86%, materials manufacturing and supply is at 83.29%, FAT was done for all electrical equipment, Cabins Construction and Civil works is at.79.69%, materials are transported to different cabins.

Onsite works s	status	Issues
Cabin	Activities done	Delay in payment
Samuduha	Wall finishing and painting works are in progress.	for expropriation of plot for
	Lighting installation works are in progress	Abbatoir Cabin.
	General site cleaning.	
Kimihurura	Wall finishing and painting works are in progress.	
	Lighting installation works are in progress.	
	General site cleaning.	
Rebero	Wall finishing and painting works are in progress.	
	Lighting installation works are in progress	
	General site cleaning.	
Portofino	Wall finishing and painting works are in progress	
	Lighting installation works are in progress	
	General site cleaning.	
Minijust	Wall finishing and painting works are in progress.	
	Lighting installation works are in progress	
	General site cleaning.	
Merdien	Wall finishing and painting works are in progress.	
	Lighting installation works are in progress.	
	General site cleaning works.	
Ambazaire	Wall plastering and rendering works are in progress.	
	Fixation of doors and windows are in progress	
	General site cleaning works are progress.	

 Table 12 Eight Cabins to being reinforced in Kigali distribution network

# 6.2 Construction of 30kV line from KABARONDO to NASHO irrigation project in Eastern province

The progress of the project as of 30<sup>th</sup> June 2021 was as follow: The project progress is 75.5%, the construction works of the substation are completed.

Works at Nasho substation was as follow: Earthing installation is ongoing; Oil filling and filtration is ongoing.

Works in the line: Stringing works was ongoing.

# Pictures of yearly distribution projects achievements

#### 7.1 Nasho Project

Substation

b) 30Kv OHL from Kabarondo to Nasho



7.2 Customer and Doing Business Projects



Power supply to WASAC\_CCECC Buhoro



Power supply to Petrocom

7.3 Reinforcement of Kigali distribution network Rehabilitation of Eight Cabins





Kimihurura cabin



Samuduha Cabin



Merdien Cabin



Amba Zaire Cabin

Portofino Cabin

Figure 10 Pictures of 2020-2021 distribution projects achievements

## 6.3 Summary of Customer Projects

N0	Item	Number	Amount (Frw)
1	Projects not yet surveyed	15	-
2	Quotations Awaiting	34	1,763,913,857
3	Ongoing projects	20	2,648,538,514
4	Completed project since July 2020	42	1,554,753,089

Table 13 Summary of Customer Projects

#### 6.3.1 Completed customer projects

No	Name of the project	Quotation Frw	Completion date
1	Power Supply to Cyanjuna Water Pumping station in Ngoma District	3,026,110	4-Jul-20
2	Power Supply to Nyarugenge District Hospital	84,842,091	8-Jul-20
3	Power supply to traffic lights in Nyabugogo	226,324	14-Jul-20
4	Supply and installation, of transformer and switch gear for the NISR new building	157,177,325	11-Jul-20
5	Powe supply to Kigarama Village in Rulindo District	47,211,820	2-Jul-20
6	Power supply to High Productive Grain Mill ltd/Installation	4,464,073	29-Aug-20
7	Power supply to Gabiro Mechanized Division in Gatsibo District	157,928,999	5-Sep-20
8	Power supply to Cameras within Kanombe Airport	8,433,514	24-Aug-20
9	Power Supply to Remera-Muganza-Ndora Water Pumping Station in Gisagara	2,914,167	12-Sep-20
10	Power supply to Rwanda National Police control Technique Rwamagana	35,302,966	25-Oct-20
11	Works supervision for power supply to Ruhunga Primary School in Ngororero	1,865,745	31-Oct-20
12	Power supply to Rwanda National Police control Technique Musanze	29,255,356	13-Nov-20
13	Power Supply to Nyarugenge Sector	1,232,059	18-Nov-20
14	Power supply to Kabiraro pumping Station/JV CLASS POINT COMPANY & KGS-C Ltd	8,860,214	30-Nov-20
15	Power supply to Wasac Cyondo WTP	84,896,936	29-Nov-20
16	Works supervision for power supply to Gasanze Pumping Station /Muhura in Gatsibo	4,521,460	18-Dec-20
17	Electrification of public CCTV cameras for 107 sites in Kigali	220,654,652	20-Dec-20
18	Three phase power supply to Gacurabwenge barracks (Eng. Brigade)	6,633,394	20.11.2020
19	Installation of 600 MV Overhead line to supply Power to Agahebuzo Drinks processing Ltd located in Rwamagana District	1,998,619	24-Jan-21

No	Name of the project	Quotation Frw	Completion date
20	Works Supervision of Power supply to RUBAYA KABEZA BUNGWE pumping station /ECOHYBA	3,805,020	22-Jan-21
21	Works Suppervision of Power Supply to Kitazigurwa Pumping station in Gicumbi	4,558,999	22-Jan-21
22	Class joint Nyankora	2,493,290	23-Jan-21
23	Power supply to Bucyemba /Ndera pumping station JV GTC Ltd & ECOREMI	5,082,304	28-Feb-21
24	Power Supply to 30CCTV in Kigali	102,935,955	24-Feb-20
25	Power supply to Nkumba Trainees Hostel located in Burera District	68,107,891	28-Feb-21
26	Supervision works for Construction of LV line to supply power to IHS telecommunication tower named: IHS-EST-193M-GAKO 3 in Bugesera branch	839,827	
27	Supervision works for I.H.S MUSAZA 2	303,552	26-Mar-21
28	Supervision works for Munyiginya Pumping Station in Rwamagana district	1,334,876	28-Mar-21
29	INSTALLATION OF 500KVA TRANSFOMER FOR THE CONSTRUCTION WORKS OF NISS OFFICES	89,229,169	8.4.2021
30	Relocation of part of Rwamagana Feeder	2,644,026	24-Apr-21
31	Supervision works Power supply to United Nations International Residential Mechanism for Criminal Tribunal (UN-IRMCT) Implemented by SONATUBES Ltd	3,911,110	30-Apr-21
32	POWER SUPPLY TO BUSOGO PUMPING STATION	22,673,285	14-May-21
33	Supervision works for Rwanda Mines,Petroleum and Gas Board	2,739,252	18/05/2021
34	Power Supply to National Archieves	4,474,265	25/5/2021
35	Power Supply to Kingfaisal Hospital	2,029,500	24/5/2023
36	Extension of 30 KV Line to Install 30 KV/11 KV 2000 KVA Transformer at Shema Power Lake Kivu Ltd	38,784,954	4/4/2021
37	Installation works for power supply to ECOMUJ(Rusarabuye Pumping Station)	2,072,524	
38	Kicukiro integrated Development Program(IDP Model Village Masaka)	118,257,777	
39	Karongi integrated Development Program	17,963,655	
40	Supervision works at RFL	2,429,152	20/5/2021
41	POWER SUPPLY TO GAKENKE DISTRICT NEW COMPLEX BUILDING	2,277,626	22.06.2021
42	RDB/Gishwati Mukura National Park HQ; Matyazo Post; Mukura Post	194,359,256	29.06.2021

 Table 14 Completed customer projects 2020-2021

## 6.3.2 Doing business projects Summary

Total: <b>366</b>	Surveyed: <b>353</b>		Completed: 155
		Comply/ Quotations done: <b>266</b>	Ongoing: 72
			Not ready: <b>37</b>
		Not Comply: 87	Responded: 87 Not responded: 0
	Not Surveyed: 13		

Table 15 Summary of doing business projects

### 6.3.3 Completed Doing Business Projects

Nº	Project Name	Completion date
1	Adventist university of Central Africa	6-Jul-20
2	John Bagabo family farming Co	11-Jul-20
3	E&B Company	11-Jul-20
4	RDB warehouse in KSEZ	30-Jul-20
5	Ingufu GIN	30-Jul-20
6	Rwandamotor	30-Jul-20
7	Centre pastoral notre dame de fatima Musanze	30-Jul-20
8	Akagera business Group	30-Jul-20
9	Nyirasafari/Rutsiro	30-Jul-20
10	Musasa Mining	5-Aug-20
11	COOPERATIVE KOAKAKA/ Nyamagabe	8-Aug-20
12	Nitrivo food and beverage Ltd /near KSEZ	8-Aug-20
13	SP Rwamagana	8-Aug-20
14	Metalen Ltd KSEZ	8-Aug-20
15	Salaam machine factory/ Kabuye	7-Aug-20
16	Legend Cottage Limited/ Rutsiro	10-Aug-20
17	I&M bank located in Nyarugenge	6-Sep-20
18	Mark Cable Nyanza	12-Sep-20
19	Ifunguro ryiza	14-Sep-20
20	Rice processing plant Nyamasheke	14-Sep-20
21	Ruhango Rice processing	31-Oct-20
22	Garden Fresh	23-Nov-20
23	Ihirwe trading	26-Nov-20
24	New finest factory	20-Nov-20

25	COTROCORI Bugarama	15-Dec-20
26	Betterment kayonza	18-Nov-20
27	Strawtech building	18-Nov-20
28	Crusher Ntarabana	
29	K-L House ltd	
30	Eden Farm	
31	Unga Maize Plant	
32	Uzima Chicken	
33	RMT Factory (Petrocom)	
34	4b HOLDINGS Ltd	19-Jan-21
35	Nyagatare Maize Processing Company	22-Dec-20
36	Akagera Transit Lodge	16-Nov-20
37	Briqueterie Gati Ltd	9-Dec-20
38	Muhura Agro-Processing	5-Feb-20
39	Mahwi Grain Millers	14-Jan-21
40	Seven Hills Muhanga	
41	3M BROTHERS	
42	ADARWA	
43	IMPANO Maize FLOUR Gicumbi	
45	Mukunguri Rice Promotion and	15-Jan-21
	Investment Company Ltd (MRPIC LTD)	
46	BSK Valens Ltd/Sezikeye	6-Mar-21
47	ROTO Factory	7-Nov-20
48	Agahebuzo Processing Drinks	
	located in Rwamagana	
49	RTEC Ltd in Rutsiro District	
50	Roba General Marchands Ltd	
	Located in Kigali Special Economic Zone	
51	BCM Crusher, Kamonyi	6-Jun-21
52	Ibiryo bishya	26-Jun-21
	Completed Doing Business Projects	20 <b>-</b> Juli-21

Table 16 Completed Doing Business Projects

# 6.4 Planning section activities

Activity Description	Scope of Works	Period
Network Loss Analysis (2019-	-Segregation of Network Losses at all levels of	15 <sup>th</sup> July - 15 <sup>th</sup>
2020)	the network (Technical and Non-Technical	August 2020
	Losses)	
Scoping of Network	Development of project proposal, BoQ and	01 <sup>th</sup> July - 15 <sup>th</sup>
Strengthening projects to be	Tender Documents for the Network strengthening	December 2020
financed by different	projects i.e. Refurbishment of Distribution	
Development Partners (World	Network (Voltage drop and loss reduction),	

Activity Description	Scope of Works	Period
Bank, AFDB, EIB, Korea Exim, India Exim etc	Renovation of Low voltage underground cables & MV/LV cabins in Nyarugenge, Installation of MV switching cabins, construction and upgrade of medium voltage (Overhead & Underground) line in Kigali. etc	
Power System Studies for the Shango-Mbarara 220kV Interconnector	Joint Power system studies with UETCL i.e., Load Flow, Contingency, Short Circuit and Dynamic studies	01 <sup>st</sup> June 2020 - 15 <sup>th</sup> October 2020
High-Voltage(HV)TransmissionlineandMediumVoltage(MV)DistributionlinenetworkpowerfactorySimulationmodel.	<ul> <li>-Distribution network is modelled up to the level of distribution transformers, the DT is modelled as load</li> <li>- Load Flow studies for different scenarios and updating</li> </ul>	Continuous as the network expands
Power supply to KOAIMU in Rutsiro District	Quotation preparation and resource mobilization	28 <sup>th</sup> - 30 <sup>th</sup> July 2020
Power supply to KOAKAKA and Rwanda Trading company	Site work on MV line construction and transformer installation.	6 <sup>th</sup> -16 <sup>th</sup> August 2020
Technical site visit in Muhanga District	Visit on MV line construction Work to energize Gasharu Transformer and information gathering.	28 <sup>th</sup> - 31 <sup>st</sup> October 2020 16 <sup>th</sup> -18 <sup>th</sup>
Power supply to StrawTec in Nyagatare District	Quotation preparation, resource mobilization and commissioning	November 2020
Data collection	Site works for gathering technical information regarding substations, HV line and MV line in Rusizi District.	11 <sup>th</sup> -16 <sup>th</sup> December 2020
Quality Inspections under EPC East construction by STEG International Services in Rwamagana, Kayonza, Gatsibo and Ngoma Districts, Eastern Province.	<ul> <li>-Quality Inspections of completed power lines under EPC East constructed.</li> <li>-Compiling Parameters of Power Transformers, Feeder and Conductor size of distribution lines in Eastern Province.</li> </ul>	18 <sup>th</sup> - 30 <sup>th</sup> January 2021
Joint Power Systems Studies with UETCL for the commissioning of Shango- Mbarara South 220Kv Interconnector	Power system simulations (Static & dynamics) to ascertain the behavior of the network with tie-line operation. Different scenarios were considered.	25 <sup>th</sup> January to 12 <sup>th</sup> February 2021
Final review of the hypothesis of the segregation of technical losses	Both a theoretical and simulation model were used to ascertain the share of network losses in the different subsystems.	8 <sup>th</sup> -19 <sup>th</sup> February 2021
Rwanda E-mobility project	REG-in-depth assessment Rwanda E-mobility project	15 <sup>th</sup> -19 <sup>th</sup> February 2021

Activity Description	Scope of Works	Period
Data Collection and different	Facilitation in data collection regarding, existing	Continuous
engagements with the	generation availability, tariff, fuel consumption to	continuous
consultants working on the	be used in the planned LEAP model	
Resource Study		
System studies for the	Provide network status through simulation results	22 <sup>nd</sup> February
northern Hub Network in	on the loading, network losses and supply	2021 to 5 <sup>th</sup>
comparison with the entire	availability	March 2021
network		
Validation of data during the	Review and provide justification for the proposed	8th -12th March
review of the Indicators in the	change of indicators in the RESSP appraisal	2021
RESSP project appraisal	matrix	
Training on the Public Private	Train on the concept of the private sector and	8th -12th March
Partnerships (PPPs) in	PPPs into the funding of Transmission lines (T-	2021
Transmission Lines	Lines), allowing to gain insight into the potential	
	opportunities for private investment in T-Lines,	
	and the needed enabling environment that is	
	required to unlock investment.	
	-	
Data Collection and different	Facilitation in data collection regarding, existing	Continuous
engagements with the	generation availability, tariff, fuel consumption to	
consultants working on the	be used in the planned LEAP model	
Resource Study		
Participation in the IRENA-	Follow-up the online training using MESSAGE	Continuous
CAPP Regional Model		
Analysis & Planning		
Programme that aims at		
enhancing energy planning		
capacity within CAPP		
member countries.		
Participation in REG quarterly	This work is to track projects progress against the	22 <sup>nd</sup> March to 3 <sup>rd</sup>
field monitoring and	planned milestones (cost, quality and timeline), to	April 2021
evaluation	ensure the quality of data collected and make	
	quality assurance of the project works.	
Update of the Loss Reduction	The loss reduction strategy (2020-2030) has been	$22^{nd}$ to $29^{th}$
Strategy 2020-2030	developed and currently under approval process	march 2021
Feasibility studies for power	Continued feasibility study with site visits to	7 <sup>th</sup> to 12 <sup>th</sup> April
export to DRC through Goma	Rubavu substation and Mururu 1 substation	2021
and Bukavu	Feasibility report, BOQ, SLDs	19-20 <sup>th</sup> April
		2021
Coordination with branches to	Preparation of required BOQ and presentation to	26 <sup>th</sup> -28 <sup>th</sup> April
identify critical areas with	Management	2021
voltage drop issues		20th A 12001
Project monitoring and	Site visit in 8 cabins project(Amba Zaire, Rebero,	28 <sup>th</sup> April 2021
Evaluation	Samuduha, Portofino) to assess it progress and	
	quality and standards compliance.	

Activity Description	Scope of Works	Period
Update of the Single Line	Update to include both existing and planned	29th April – 26th
Diagram for the electrical	Substations and the outgoing feeders	May 2021
network		-
Coordination to identify	Data Collection and Preparation of BOQ	3rd -4th May
critical sites with voltage drop	· · ·	2021
in all EUCL branches		
Study of upgrade of Low	Design of the line route, preparation of BoQ for	4 <sup>th</sup> May-1 <sup>st</sup> June
voltage network in Kacyiru	the required upgrade	2021
branch	1 10	
Preparation of EUCL Budget	Coordinating all departments ,gathering their	4th-28th May
and Action plan	action plan and budget plan compiling and	2021
	finalizing the required overall budget	
Study of upgrading all	preparation of BoQ	ongoing
existing overhead electrical		
Network using underground		
Cable In Kigali		
Doing business Project	Site visit for verifying readiness of customer and	14th-17th May
	finding the nearest MV tapping point.	2021
Preparation of proposals for	Thorough reading and understanding of the	Ongoing
revision of the Rwanda Grid	existing version of the Rwandan grid code and	
Code	development of proposals for review	
Facilitation in the	Data collection and development of concept notes	Ongoing
development of the update of		
the Distribution &		
Transmission Master Plan		
June 2021		
CodeFacilitationinthethedevelopment of the update oftheDistribution&TransmissionMasterPlan	development of proposals for review	Ongoing

# 6.5 GIS section activities

ACTIVITY NAME	ACTIVITY STATUS
Update GIS Database by	Update REG/EUCL GIS Data base of electricity network including all
Production of as-built drawings	MV/LV Support or Poles, Towers, and new installed transformers in
for new constructed MV /LV	different branches of Eastern province and southern province
network lines and Record of new	
installed transformers to update	
GIS Database	
GIS Database cleaning	GIS Database cleaning by completing the missing information:
	Snapping and Numbering towers on 110 and 220kVLines
	Data processing and cleaning to update the network in Bugesera branch.
	Data cleaning on transformers (matching names in database with those
	from branches, updates on capacity and serial number etc.)
	Filling Substation and Feeder names on MV Lines and Transformers
	MV Support, LV Support and Customers
	MV/LV Support and lines part of Southern Province.
	MV/LV Support and lines in Eastern Province

ACTIVITY NAME	ACTIVITY STATUS
Map production to support	Periodically we produce maps to support planning and maintenance of
Engineers for BOQ, projects	electrical lines some of them are:
implementation and other	Electrical Network Map of Rubavu
department	Electrical Network Map of Nyabihu
	Map of as built of MV Line of legend cottages
	Mapping of MV/LV cabins and associated MV lines.
	Mapped of Transmission and distribution in in Kigali City.
	Mapping of Six Cabins
	Mapping for relocating 110 KV line at Kimihurura.
	Map showing MV Line Extension to Bonsejour, Nyarugenge
	MV Line Extension to Kinyoni,
	MV Line Extension to Mageragere, Mataba, Murambi.
	MV Line Extension to Rubete.
	Map showing T-OFF Kicukiro to Nyanza
	Map showing MV Line Extension to Handicap in Nyarugenge Branch
	Mapped of Substations, Cabins, Transmission, and distribution lines in
	Kigali City.
	Map of Transformers, Transmission, and distribution lines.
	Electrical Network of Gisagara Branch
	Mapped of Optical Fiber and RTU
	Power supply project to Agakiriro Project located in Musanze District
	Power supply project to Placide Hotel(MV=183m)
	Power Supply project to Wisdom School(MV=149m)
	Power supply project to Agakiriro Musanze (MV=30m)
	Power supply project to HAHA Manufacturing Company(MV=146m)
	Power supply project to Kabaya Garlic Joint Venture Ltd (MV=7m
	LV=142m)
	Power supply project to Keza Processing Company(MV=891m)
	Project located in Rubavu District
	Power supply project to Kawunga Butamu (MV=19m)
	Project located in Nyanya District
	Project located in Nyanza District
	Nyanza(67m) Project la sota d in Cataila District
	Project located in Gatsibo District
	Power supply project to ROMA in Nyabiheke (Ubuhinzi n'ubworozi) MV=881m
	Power supply project to Leonard Sayinzoga (MV=1.814km)
	Project located in Kirehe District
	Power supply project to Unguka Muhinzi (MV =292m)
	19. Survey and mapping proposed mv line in doing business project:
	1. BUSHA PRODUCT LTD
	2.Bweyeye water plant
	3.Gahinga Cooperatives'

ACTIVITY NAME	ACTIVITY STATUS
	4.Macev-Mining
	5. Njodfrey Ltd
	20. Pegging MV Lines for Power supply to Gako Resort in Bugesera
	District
	Length :814m
	21. Pegging MV Lies for Power supply to Nemba Mining project in
	Bugesera District
	Length: 307m
Topographic Survey to Support	We did topographic survey to support maintenance of existing line,
Planning and Development	street light and doing business project some of them are:
	Rehabilitation of Medium Voltage Line in Gishwati/Nyabihu Branch.10
	Km
	GIS Data collection for field elements (Auto-recloses & Load Break
	Switch) to be installed in distribution network (MV Lines)
	Extension MV Line to Mpumure and Barija at Gahanga.
	2.Extension MV Line to Retc mining in Rutsiro District
	Relocation of Tower to collapse due land sliding located at kageyo
	Sector, Nkora cell, Buhimba Village, in Rutsiro District
	.Implementation of New Tower at Kageyo Sector, Nkora Cell, Buhimba
	Village, in Rutsiro District
	In Western & Northern HUB
	Electrical power source for lot 1 (Murunda hospital tarmac access road)
	in Rutsiro district
	Relocation of Collapsed towers due to landsliding caused by heavy rain
	at Nshili Micro Hydro Power Plant.
	Survey and Map production of proposed MV Line at StrawTec to
	Support Doing Business Project
	Topographic Survey and Pegging for 30Kv Pylon affected by Land Slide
	in Ngororero District/ Branch.
	Survey and map view to show the proposal of Maranyundo cabin in
	project in Nyamata Bugesera district (Estimated length=3km).
	Survey and Mapping of Underground MV Line and Its length from
	kabatwa to Karisimbi Top
	Survey for Power Supply to Agakiriro/Mayange for Eradicating Voltage
	Drop in Bugesera Branch Survey for Proposed MV and LV Lines in Karumuna Village. Ntemme
	Survey for Proposed MV and LV Lines in Karumuna Village_Ntarama
	Sector for Eradicating Voltage Drop Survey for Proposed Transformer in Gasenga Village for Eradicating
	Voltage Drop
	Survey for Proposed Transformer and LV Line in Rwanda Village
	Survey for Proposed Transformer in Rwakibirizi Village
	Survey for Rehabilitation of LV Line In Gacucu Village
	Relocation and Implementation of tower in Karongi district

ACTIVITY NAME	ACTIVITY STATUS
	<ul> <li>Surveying line route of proposed Medium voltage line for power supply to</li> <li>Brique Nouvelle (Huye District).</li> <li>Bumbogo Crusher (Gasabo district)</li> </ul>
	Surveying line route of proposed Underground Low voltage line for power supply to I.H. S Nyungwe Gashwi (Nyamagabe). Levelling 3 towers relocated at Rutsiro District
Distribution Master Plan	Together with EDCL we did Zoning of feeders in order to plan a head our distribution network and propose the new project where necessary.
Survey and Map Production of Proposed Upgrading MV Line, Cabin to strength Kigali City network	Kigali City Transmission and Distribution Electrical Network Distribution Electrical Network in Southern HUB Distribution Network in Gisagara Branch Distribution Network in Huye Branch Distribution Network in Nyaruguru Branch Distribution Network in Nyamagabe Branch Surveying line route of proposed Medium voltage line for power supply to orchid industrial Co. ltd. (Gahanga) Surveying line route of proposed Medium voltage line for power supply to Diagonostic clinic center. (Nyarutarama) Surveying line route of proposed Medium voltage line for power supply to Reonard kawunga industry . (Kamonyi district) Surveying line route of proposed Medium voltage line for voltage drop reduction in Gako cell,Masaka sector. Surveying line route of proposed Medium voltage line at Master beauty product ltd (Ndera) Surveying line route of proposed Medium voltage line for power supply to Electric moto company. (kicukiro district) Surveying line route of proposed Medium voltage line for power supply to Electric moto company. (kicukiro district)
Delivering necessary GIS data to Support EUCL department and external institutions	Providing EUCL Electrical Infrastructures City of Kigali to facilitate in preparing Kigali master plan Producing Customers' Excels by Branch by combining Geographic customers with administrative boundaries (Request of converter GIS Data customers in excel table of each branch to support Data analysis in Suprema. (IT Department) Calculate and Retrieve geographical coordinate data from GIS customers connected to onatracom transfo to support DMS Customer Report to support Commercial Department. (Anti-theft campaign and Inspection Operation exercise) Geodata processing to produce excel sheet to support transmission Engineers in quiet intervention in transmission line. (Geographical coordinates of MV 110Kv Lines from Rulindo to Jabana I)

ACTIVITY NAME	ACTIVITY STATUS
	Project for upgrading of 30Kv at Nyabarongo I Power station Numbering Pylon of 110Kv lines and prepared excel table with coordinates and address locations to support transmission team Retrieving Data from GIS database of all transformers grouped by capacity and Branch
Customer mapping with GIS Surveying Tablets	Around 8000 customers were mapped using GIS surveying Tablets Founding customers mapped with errors to support commercial department.
GIS Surveying Tablets Training and Support	Branch Technical surpervisor, and technicians were trained on the use of GIS Surveying Tablets, Surveying tablets were updated and errors were fixed
Development of GIS Portal	REG/EUCL Geoportal was updated and linked to REG Web site Network dashboard were updated and visible on Geoportal different users started using it and their day-to-day activities. Different network statistics and interactive maps are available on REG Website through Geoportal
Update EUCL Transformers movement (Defected, Replacement or interchange) in Network	Transformers are updated regularly based on their movement in network but we are planning to update the way transformers are updated and moved
GIS Tender	Procure One GIS plotter machine for Printing Office electrical map and Electrical Surveying map <i>This tender was cancelled and will be relaunched in this financial year</i> Building Rwanda Geometric Network (Building Connectivity Model showing all edges, junctions, power direction and connectivity details of the network): <i>This tender is ongoing, we already done with evaluation</i>

Table 17 GIS section activities

# 7 PERFORMANCE OF DISTRIBUTION SYSTEM

# 7.1 <u>Distribution Network Extension</u>

REG Distribution Network Consist of medium voltage and low voltage networks (both overhead and underground). The medium voltage network operates at 30kV and 15kV whereas low voltage network operates at 400V and 230Volts. Distribution Department is responsible for Operations and Maintenance of all MV & LV distribution network assets to ensure the availability, reliability and quality of power supply to REG customers. The main network components are: Medium Voltage and Low Voltage lines (Overhead and Underground), distribution transformers, switching Devices (Auto-reclosers, GIS switchgears, Load disconnectors), MV cabins, streets lights, etc

Distribution network is mainly made by:

- Medium voltage lines: 9,944.3 km
- Low Voltage lines: 17,389.6 km
- Distribution transformers: 6,093 transformers

Description	2019/ 2020	Access increment	EUCL extension projects increment	Total Increment 2020/2021	Network Status 2020/2021	% Growth Rate
Medium Voltage (km)	9,205.8	699.3	39.1	738.5	9,944.3	7.43%
Low Voltage (km)	16,108.9	1,267.9	12.7	1,280.7	17,389.6	7.36%
Distribution Transformers	5,479	519	95	614	6,093	10.08%

Table 18 Distribution network extension 2018 – 2021

The Medium Voltage network has increased by 738.5 km (7.43%), it means from 9205.8 km as of end June 2020 km to 9,944.3.56 km while the low voltage lines added 1,280.7 km (7.36%), from 16,108.9 km as of end June 2020 to 17,389.6 km by June 2021. The distribution transformers have increased by 10.08% (614 transformers).

# 7.2 Implementation of Projects

The distribution department implemented customer projects such as re-location of infrastructure, upgrade existing infrastructure, transformers maintenance, provision of standby/emergency generators, technical support & supervision, etc. This year 146 different customer's projects were executed, where about 92% have been completely executed and 8% are ongoing at different percentage of progress.

The table that summarizes all customer projects and services (completed & ongoing) during this fiscal year 2020/2021 are in *the annex 5*.

# 7.3 <u>Distribution Transformers Status Report</u>

As the network growth the number of Distribution transformers also increases either three phase or single phase. As of June 2021, a total of 6,138 **distribution transformers** were installed compared to **5876 distribution transformers** installed by June 2020. These transformers should be well maintained and monitored to improve their performance and lifetime. Some overloaded

transformers have been upgraded by bigger one or insert a new transformer to reduce load on that one which is overloaded. Defected transformers due to different causes were replaced by new one to keep power supply to our customers as soon possible. In our network there are also underloaded/ light loaded transformers that have been swapped/interchanged with overloaded transformers this initiative has been taken to reduce cost of procuring new transformers. During this financial year 2020/2021, **192 transformers** have been used for network upgrade, voltage drop reduction and replacement of defected transformers.

During financial year 2020/2021, 147 transformers representing 2.39% of installed transformers were damaged and replaced.

SN	Province	Branch															ansfor																
	TTOVINCE	Dianch	10	15	25	30	50	63	75 80	100	125	150	160	200	250 3	00 31	5 400	450	500	600	630	800	1000	1200	1250	1600	2000	2500	3000	3150	3600	5000	Total
1		Jabana			30	1	21	1		19	1		12	6	22		1 26	2	6	1	11		3		1	5				1			170
2		Kacyiru			4	3	9			18			4	18	26		6 35		12		20		25		2		1						185
3	Kigali City	Kanombe		1	37		11			30			15	7	29		3 15	2	2		8		1	1	3	1		1					168
4	riyali oliy	Kicukiro			14	4	8		1	15			9	11	27		3 44	1	8		8	1	2		1		2						159
5		Nyarugenge			19		20			8	1		3	6	26		3 20	1	9		24		16	1		1		2					160
6		Remera		1	15		23			22			6		47	1	0 20	1	9		14	1	13		3						1		200
7		Gisagara	4	43	64		48			34			8	-	7		1								2								213
8		Huye	1	6	30		27	1	1	35			8	6	12		2 7		1		6												143
9		Kamonyi	1	10	24		32			23			4		12		1 6		1		2		3										119
	Southern	Muhanga	1	5	19		31			20			4	2	10		9		2		2												105
11	Province	Nyamagabe		4	52		32			20			9		3		2				2		1										126
12		Nyanza		35	47		55			27			13	1	7		2 5						1										193
13		Nyaruguru	2	29	66		38			33	2		1	1	2		1 3		1		3		1										183
14		Ruhango		15	59		71			38			3		9		4		1														204
15		Karongi		7	26		8			14			3	2	9		1		2														72
16		Ngororero		9	79		32			25			1		10		3				1												160
17	Western	Nyabihu		19	21		42			19			1	3	8		8		2		1												124
18	Province	Nyamasheke		24	58	2	42	1		32			3	-	7		7		2		1		1										183
		Rubavu		29	46		42			41			8		20		17				10	1	4										218
20		Rusizi		38	54		29			40			5		25		8		1		5		1										213
21		Rutsiro		47	27		38			38			13		2		3		1			1											170
22		Burera			60		81			30			4	-	7		1 4																189
23	Northorn	Gakenke		24	57		63			21			2				2						1										173
24	Drovince	Gicumbi	1	47	53		81			74			14		15		5		1		2		2		1							1	299
25		Musanze		8	54		45			29			7	2	15		1 17		3		3	1	2		1								188
26		Rulindo		13	52		35			26			11	_	8		2 5		4														158
27		Bugesera		76	81		53			26		1	7	6	24	2	1 8		3		2		4				1		1				296
28		Gatsibo	65	4	74		49			30			7	1	16		8		1		1												256
29		Kayonza	39		60		25			33			4	2	7		5								1								176
30	Province	Kirehe	53	16	92		46			27			3		7		1 7		1				4										258
	11011100	Ngoma	55	2	41		32			28			7	4	5		1 4				1												180
32		Nyagatare	83	2	103		56			31			1	1	13		1 10		3		3		2			1							310
33		Rwamagana	10	1	36	Ц	39			45			11		15		3 18	2			5		1						1				187
Tota	ıl		315	515	1554	10 1	1264	3	2 1	951	4	1	211	120	452	2 4	4 336	11	76	1	135	5	88	2	15	8	4	3	2	1	1	1	6138

The table below shows the installed transformers per branch:

Table 19 Installed transformers per branch

								30kV													15kV					. 1
Reason	3-phase							1-phase 30/6.6kV 3-Phase							OTAL											
	kVA	25	50	100	160	200	250	315	400	500	630	10	15	25	50	500	25	50	100	160	250	315	400	500	1000	Ţ
Upgraded transformers due to overload (new from store)		1	8	8	2		4	1	3	1	3									1				1		33
New installed transformers (N reduction)	/D						1								1			1		3	5			1		12
Interchanged transformers due loading condition (not from st		15	24	15	7	2	3	2	1			4	4	8	4		4	2	3	1	1	1	1		1	103
Replacement of defected transformers		19	31	40	3	2	6	1	3	1	1	7	9	5	5	1	3	3	4	1	1		1			147
Total		35	63	63	12	4	14	4	7	2	4	11	13	13	10	1	7	6	7	6	7	1	2	2	1	295

Table 20 The movement of distribution transformer

The top-three(3) distribution transformers most defected in this fiscal year (2020-2021) are:

- 3-phase 30/0.4kV transformer 100kVA: 40 transformers (about **27.2%** of all defected transformers)
- 3-phase 30/0.4kV transformer 50kVA: 31 transformers (about **21%** of all defected transformers
- 3-phase 30/0.4kV transformer 25kVA: 19 transformers (about **12.9%** of all defected transformers)

Note: These top-3 transformers cover 61.1% of all defected transformers.

#### 7.4 Distribution Network Incidences Analysis

The Distribution Network reliability is one of the major concerns of the distribution management; reliability aspects are an important part of the decision base. EUCL Distribution Network is very complex, outages and failures due to different causes result the network instability of the distribution network. The Annual network disturbances report from National Electricity Control Center (NECC) was analyzed.

Two main categories of outages:

a. Planned outage (load shedding due to unbalance between demand and the generation and different planned maintenance activities and construction works)

b. Unplanned outage: tripping of feeders due to occurrence of a fault (Tripping due to overcurrent, Partial Blackout, under-frequency, tripping due to under-voltage, Total blackout and other causes).

As the causes of network disturbances are based on the above two categories of outages, these outages and their resultant causes shall be kept minimum as to minimize financial losses of the company. These incidences assessment shall assist operation to improve in daily activities and increase on efficiency. This assessment will only assess feeders only.

Distribution network reliability analysis is considered as a tool to ensure a reasonable quality of service; this analysis report discusses the level of network disturbances according to outage category and outage type using statistical data and charts.

Cause	Frequency	Duration (h)	Energy not served (MWh)	Total Cost	Freq %
Earth Fault	4281	584.0	856.2	159,254,895	36%
Overcurrent	3695	491.2	651.9	121,247,268	31%
Under Frequency	3555	329.2	418.5	77,847,070	30%
Emergency Works	360	169.3	214.9	39,964,797	3%
Planned Works	113	164.1	213.6	39,727,541	1%
Overload	38	1.3	15.6	2,908,428	0%
Overvoltage	7	0.9	5.0	932,914	0%
Grand Total	12049	1739.9	2375.7	441,882,913	100%

## 7.4.1 Annual outages Summary

Table 21 Annual outages Summary

The outages frequency is presented as follow:

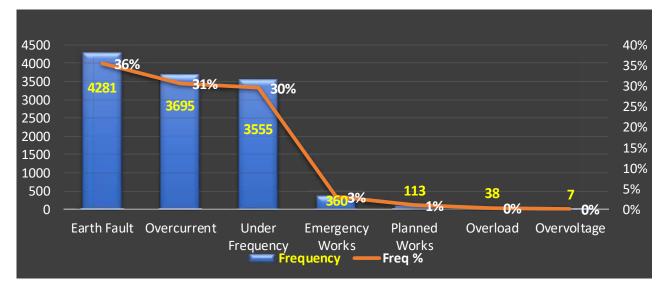
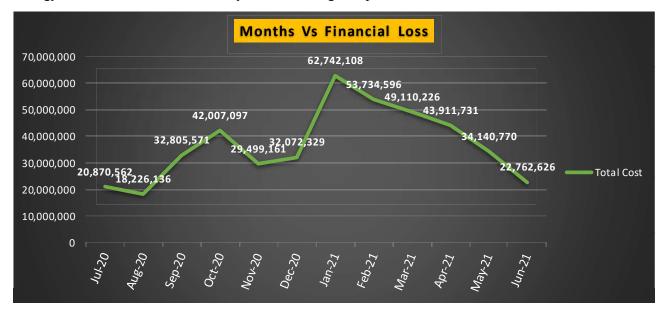


Figure 11 Representation of annual outages frequency



Energy not distributed and monetary loss Vs Outages is presented as follow:

Figure 12 Energy not distributed and monetary loss Vs Outages

#### 7.5 RECORDED ROOT CAUSES OF FAULTS & DISTURBANCES ON MV FEEDERS

It was observed that during this year we had a big number of unknown causes of faults on medium voltage feeders (1858 times). Beside unknown causes, the **top six (6)** root causes are:

- Failure of surge arrestors: **156 times**
- Failure of MV termination boxes:275 times
- Natural disaster: 128 times
- Issue of conductor clearances: 113 times
- Broken insulators: 76 times
- Tree fallen on the line: **75 times**

#### 7.5.1 Brief performance on distribution SAIDI and SAIFI

DESCRIPTION	UNITS	BASELINE (July 19- June 20)	SMART	STRETCH	ACH' July 20 - June 21	
Distribution Department key performance Indicators						
SAIDI	Hours/year	25.6	22.7	20.4	18.2	
SAIFI	TIMES/year	49	44.3	39.8	44	

Table 22 Brief performance on distribution SAIDI and SAIFI

During the FY 2020/2021, the entire country distribution network performance was improved compared to the previous given that the System Average Interruption Duration Index (SAIDI) was **18.2 hours per year** and the **average number of interruptions that a customer experienced** (SAIFI) was **44 times** per year.

# 8 CORPORATE SERVICE PERFORMANCE

The achievements for the Department of Corporate Services during the fiscal year 2020—2021 are summarized as follow:

# 8.1 General Administration

The Section of General Administrations serves a number of activities which include ensuring proper administration for resources both material and human is well implemented. It is under this section that casual workers / manpower outsourced from Reserve Force is managed.

#### **Communication Services**

The table below shows the amount spent on communication of both REG and EUCL within the whole year. Communication is split into two: being Closed User Group (CUG) and Airtime that is loaded to handsets of staff. These services are being sourced from MTN.

It is worth noting that in April, 2021, REG took over the contract for CUG and shall be paying for both EUCL and EDCL whereby the latter pays for the two subsidiary companies, i.e. EUCL and EDCL.

Service	Cost (Frw)
MTN CUG	16,740,218
Communication fees	222,033,000
TOTAL COST	238,773,218

# Provision of Water Services for REG Holding and EUCL Premises

The department has provided support to clearing the water bills for the entire REG holding and EUCL premises. For this fiscal year, the bill was Rwf 4,262,249.

#### Provision of cleaning Services for REG Holding and EUCL premises

#### **Cleaning Services:**

Cleaning services were performed well for the fiscal year being reported on. Field mission report for evaluating activities of the cleaning company was compiled and submitted. The field aimed at evaluating the quality of cleaning services offered by COMFORT SAFALIS Ltd company to the EUCL branches. This will enable the company to provide cleaning services that meet the expectations of all the customers. About **Frw 62,821,386.56** have been paid for this activity in the fiscal year 2020/2021.

#### Insurance/Rentals Services

#### **Invoice Payments**

Rental, security invoices and other invoices related to the administration were successfully paid on time. In total, about Frw 1,051,285,844 has been spent in the last fiscal year 2020/2021.

Rentals /Insurances	Cost (Frw)
Rentals	320,980,864.04
Insurance	581,794,648.56
Total Cost	902,775,512.6

 Table 23 Rental and security invoices

## Staff onboarding and exit

In the FY 2020/2021, new staff were recruited and others exited. This made the unit to gain momentum. The Head of Administration and Logistics and Manager Administration were recruited which saw a new blood in the department bur also, the Transport Specialist left the company!

#### **Improvement on the Procedures Manual**

Quite a few solutions to bridge the gaps in procedures were made for example the mission order form was improved and currently, Casual Identification Form and Material Request Form were introduced as new forms to improve on the well-functioning of the company operations. All these and others are being put together for approval of the competent authority.

# Assets & Facilities Management

#### **Asset Management**

With assets and facilities management, we ensure that company assets and facilities are well managed. Several activities have been done. We have managed to participate in a number of contract negotiations, amendments and their management as well. A number of contracts for example, extension of the contract of Jabana Thermal Power Plant, extension of contract for Extinguishers, extension of contract for air conditioners, extension of rental contract for Ngororero Branch, new rental contract for different branches.

#### **Contracts Management**

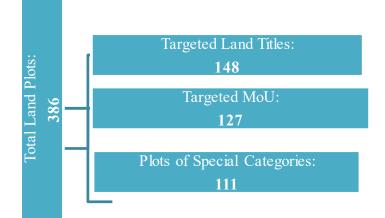
Contracts for provision of administrative services to the Company in accordance to the contract terms and conditions were reviewed and monitored.

#### **Training on Contract Management through IBMS**

Staff were trained on contracts management through the IBMS that will enhance on the contract management since all the payments, approvals and other transactions will be done in the system.

# Land Titles

Working with inside team and consultants on the land titles took a paramount time of the Unit especially while following up on the consultants and other partners in getting land titles. Field visits and mapping all the land titles was made. The graphical presentation of the land titles status report is here below demonstrated.



The activity of securing land titles was key activity in 2020/2021 where total land plots identified were 386 plots. Three groups that will change as the assignment continues to be worked on are as follow: Targeted Land Titles with 148 plots, Targeted MoU with 127 plots and Plots of Special Categories with 111 plots. By the end of the FY 2020/2021, we had registered 18 land titles and 40 signed collaboration agreements for safeguarding the electricity infrastructures. This leaves a big challenge to the Unit on the land title assignment and shall continue to work on it in the fiscal year 2021/2022.

For special categories, these include lands that have found to be on road reserves, pylons, swamps and those that were demolished by the government or because of other circumstances but there are still in the books of accounts. They will not be considered after being written off.

#### **Auction**

The Unit of Administration and Logistics worked with other departments and units to get the auction of some inventory, scraps, assets and obsolete materials auctioned but due to bureaucratic procedures, the fiscal year ended while still working on the file. We have no doubt that, this fiscal year, shall leave all those to be auctioned when it's done.

#### **Estates Management**

The Estates Engineer was trained on training on Land Acquisition, Expropriation and Compensation. This was a capacity development that left our staff much conversant with the issues in the lands management.

	Projects implemented from July	y 2020 - June 2021by	corporate services	
N	Description of Civil Works	Contract Amount (Frw)	Contractor/ Purchase Order No	Remarks
Α	Completed Projects:			
1	Construction of retaining wall for protecting the pylon of Rukarara Kilinda line in Kaduha Sector	128,426,744	Ministry of Defence /Reserve Force PO No: 11.07.022/9449/202 0	handed over to
2	Construction of Retaining wall for Pylon on Kigoma Huye Feeder in Save Sector in Gisagara District	9,567,576	Ministry of Defence /Reserve Force PO No : 11.07.022/9998/202 0	Complete and handed over to EUCL (March 2021)
3	Construction of Retaining Wall for Pylon No 10 on Rulindo Gakenki feeder in Rulindo District	14,043,268	Ministry of Defence /Reserve Force PO No : 11.07.022/10001/20 20	-
4	Construction of Retaining Wall for Pylon No 11 on Rulindo Gakenki feeder in Rulindo District	11,690,306	Ministry of Defence /Reserve Force PO No : 11.07.022/10002/20 20	Complete and handed over to EUCL (March 2021)

The table below shows the projects that were implemented in the course of the year being reported on.

	<b>Projects implemented from July</b>	y 2020 - June 2021by	corporate services	
N	Description of Civil Works	Contract Amount	Contractor/	Remarks
5	Construction of Retaining Wall for Pylon No 12 on Rulindo Gakenki feeder in Rulindo District	(Frw) 9,003,200	Purchase Order NoMinistry of Defence/Reserve ForcePONo11.07.022/9999/2020	Complete and handed over to EUCL (March 2021)
6	Construction of Retaining Wall for Pylon No 55 on Karongi Rubavu feeder in Bwishyura Sector; Karongi District	20,517,129	Ministry of Defence /Reserve Force PO No : 11.07.022/10000/20 20	Partial handover to EUCL done (March 2021)
7	Construction of Retaining Wall for Pylon No 28 on Karongi Rubavu feeder in Gihango Sector Rutsiro District	10,921,176	Ministry of Defence /Reserve Force PO No : 11.07.022/10003/20 20	Complete and handed over to EUCL (March 2021)
8	Construction of retaining wall for Pylon on Karongi Rubavu feeder in Kayove Sector, Rutsiro District	9,749,824	Ministry of Defence /Reserve Force PO No : 11.07.022/9419/202 0	Complete and handed over to EUCL (March 2021)
	SubTotal A	213,919,223		
B	Rehabilitation works:			
1	Partitioning of 6 Toilets & 8 shower rooms in Gishoma peat Power Plant	2,772,338	Civil works done by EUCL	Completed (July 2020)
2	Rehabilitation of 4 No staff houses and construction of pump house in Mururu HV Substation	22,890,111	Civil works done by EUCL	All civil works completed (August 2020) (Except installation of water pump only)
	Protection of Mukungwa Rulindo tower at Rulindo Substation with Gabions	4,144,500	Civil works done by EUCL	Completed (Feb 2021)
3	Rehabilitation of EUCL Rulindo Branch offices	2,083,750	Civil works done by EUCL	Completed (April 2021)
	Sub-Total B	31,890,699		
	GRAND TOTAL (A+B)	245,809,922		

 Table 24 Projects implemented from July 2020 - June 2021by corporate services

#### 8.2 Store Management

#### 8.2.1 Issuing and reception of materials:

The reception of Materials is done at Main stores being witnessed by reception team and one of them should come from user department just to confirm what was ordered in relation to what

is delivered so as to avoid the reception of wrong items. After the reception of the delivered materials and physical verification the materials can be entered in IBMS just to be used as usual.

**Issuing of Materials**, the materials are issued in the system upon the request of users via IBMS such as Branches, power plants and different departments, they make request through the IBMS and then the Head of Administration and logistics makes approval so as to give the permission the staff in Central Stores the right to serve the requesters.

**Fuel management,** we have HFO and LFO for power plants like Jabana1 and Jabana11 20 MW and Electronic cards for Vehicles and motor cycles, so the management of mentioned fuel is done through IMBS like other materials in central stores

#### 8.2.2 Electricity Central Store:

Report on important activities performed during the Period:

- Receiving of Materials from Suppliers & issuing of Materials to Electricity Department, Branches, Sub-stations & Hydro Power Plants
- Identification of slow moving & obsolete items for Auction
- External Audit Report 2019 2020 done on EUCL electricity store Management
- Rearrangement of returned materials from different sites
- Stock take December, 2020 & June 30, 2021, well done.

#### 8.2.3 Stationery Store:

ACTIVITY	VALUE (FRW)
Opening balance as 1 <sup>st</sup> July 2020	295,234,424
MATERIALS RECEIVED	2,450,934,171
MATERIALS ISSUED	2,333,289,025
STOCK BALANCE as 30 <sup>th</sup> June 2021	412,879,569

#### Important activities performed during this year:

- Stock take for the period ended December 2020 and June 2021 are well done.
- We received OAG Auditor General for audit purpose
- Replenishment of Stationery Store was done
- Tender of Stationeries and Cartridges was initiated, approved and is in procurement process
- We received goods from different Suppliers
- Routine activities as Store management are concerned

#### 8.2.4 Fuel Store

It is of importance to note that the SMM approved the new fuel quotas that matched the operational areas of the EUCL.

# **TPP** Consumption

Sites	Qty on Contract (liters/Kg)	Supplied Fuel July 20 to June 21				
	-	Invoiced by the Supplier (RWF)				
Jabana 1 LFO SP	12,000,000	-	-			
Gishoma PP	-	13,819	8,910,076			
Jabana 2 LFO /SP		-	-			
Jabana 2 HFO SP	15,000,000	14,255,113.23	8,312,500,810			
Total	27,000,000	14,268,932.23	8,321,410,886			

Below is the Thermal Power Plants Consumption (Supplied)

Table 25 Thermal Power Plants Fuel Consumption

#### **EUCL Vehicles Consumption**

Fuel for Vehicles:

Below is the vehicle fuel consumption during the reported fiscal year (July 20 to June 21):

Product	Qty (L)	Amount (Rwf)	Supplier
Petrol	37,674.46	37,240,358.54	SP
Diesel	617,094.77	588,018,558.62	SP

Table 26 Vehicle fuel consumption

#### 8.3 Fleet Management

We started this year with a fleet size of 162 motor and vehicles combined then we bought 11vehicles and 12motorcycles and the fleet size went up to 185. We therefore had to dispose 7 old vehicles and the fleet size decreased the number from 185 vehicles and motor to 178 in total. The 7 vehicles that were disposed are now in process of being auctioned.

#### 8.3.1 Maintenance and repair cost:

- We are working with external ATMG Garage Ltd since 24<sup>th</sup> November 2020 after the contract of Garage Honest.
- The annual total cost of maintenance and repair for EUCL vehicles and motorcycles is Rwf 565,607,298.
- Tyres replacement: we are now working with MULTI TRADING COMPANY Ltd for supply of tyres and replacement was done on time during this year. (NB: Cost of tyres is included in the annual total cost of maintenance and repair).

#### 8.3.2 Fleet Monitoring System:

- We used the system to monitor and truck Company vehicles and through the system we managed to produce the following reports including;
- Fuel reconciliation report between FMS readings and Petro station readings which helps us to avoid mismanagement of fuel that might occur.
- Over speed report; we have requested drivers to provide explanations for any violation of speed. (NB: Maximum speed for pickups is 80Km/h and for Trucks, coaster and minibus is 60Km/h). And this helps us to avoid accidents that might occur.
- Location of vehicles; we used to truck all company vehicles and know its current location to avoid unnecessary movements.

## 8.3.3 Vehicle inspection service:

We sent company vehicle for inspection service on time and all company vehicles have inspection certificates.

# 8.3.4 Insurance of Vehicles:

All company vehicles were insured by BK General Insurance Company Ltd from 29/5/2020

#### 8.4 Security

All the EUCL and REG assets have been secured by both armed (ISC)) and unarmed guards from professional companies but there are also cases where Reserve Force staff are used where the need is temporally. All these have been done professionally and where happened, the companies have been asked to compensate for the loss.

In this year, the unarmed company contract ended and was replaced. Highsec was replaced by IEC security company.

#### Challenges

Challenges	Plan to overcome challenges
1. The covid-19 pandemic: During the pandemic period the work was not easy, either working from home or limited percentage of staff office. This issue hindered many activities	<ol> <li>To ensure all employees are vaccinated so in future can stay stable at offices</li> <li>To advocate for employees to have internet connectivity even at home</li> </ol>
2. The Corporate Services department was assigned to look for land titles for all lands for REG but there was a big challenge of missing important documents accessing the land title; such as documents showing the land was bought by REG,	To reinforce collaboration with decentralized levels and neighbours of REG lands and involve them in the process
3. The staff turnover Experienced and key employees left the company at the same time which made difficult to operate	Speeding up the recruitment process of other qualified and experienced employees
4. Limited budget to implement some activities such as office equipment, rehabilitations of buildings,	To advocate to the Management for availing the budget to implement planned activities

# 8.5 Procurement plan implementation

The 59 tenders planned in the Fiscal Year 2020-2021 have been executed at 100%.

	Budget (Rwf)	Number of tenders
GOODS	20,176,094,000	51
SERVICES	1,080,000,000	7
WORKS	5,000,000,000	1
TOTAL	26,256,094,000	59

Table 27 Summary of procurement executed tenders

# 9 LEGAL SERVICES

The Legal Services Annual Report presents a comprehensive overview of the activities of legal unit within Energy Utility Corporation "EUCL or Company" in the Financial Year 2020-2021. This report builds on those of previous years, continuing to provide transparency through the data needed to inform sound decisions concerning EUCL legal services.

This year's data reveal a marked decrease in Company litigation from 47 in 2019-2020 to 33 in 2020-2021. While that drop of 29.8% is noteworthy, a deeper dive into the data within this report gives ample reason to be cautious before declaring that drop indicative of a trend, much less the beginning of the end of Company litigation. This results into the fact that insurance litigation raised at 266.6% from 6 cases in 2019-2020 to 22 cases in 2020-2021. Nevertheless, the Company has reason to smile because other litigation dropped at 73.1%.

In all 33 cases filed by and against the Company, only 14 were decided by courts while other 19 wait hearing on merit. In decided cases, the Company won 10 and lost 4 cases. This brings a winning ratio to 71.4% and losing ratio to 28.6%. In won cases, the Company was awarded 770,974,739 Frw while it lost 76,909,660 Frw in lost cases.

In terms of lawyers' fees, the Company paid 8,500,000 Frw while it recovered 4,800,000 Frw in won cases, leaving the net lawyers' fees expenditure to 4,700,000 Frw.

Net expenditure for Court fees amounts to 100,000 Frw. The Company also was awarded 970,000 Frw as court procedures fees in contrast to 200,000 Frw it was ordered to pay in lost cases. Net profit for court procedures fees amounts to 770,000 Frw.

In insurance matters, premiums for global assets and general liability insurance remained steady during this FY 2020-2021. In global assets, 124 incidents worth 465,239,140 Frw were experienced. The number marks an increase of 79.7% in incident trend compared to the previous year where incidents equaled 69. In general liability insurance, the Company received 109 claims, a decrease of 32.7% of 162 claims of the previous year. Loss in lives and personal injuries decreased at 1.2% where they occupy 21.1% of the total number of general liability claims.

The estimated value of claims in general liability this year is nearing 1 billion while compensation reached 73%, an increase of 14%. Compensation in global assets insurance went at slow pace of 11.3%.

In contracts, legal unit reviewed and drafted over 230 contracts. Contracts for works occupy a lion share of 44.3%.

Departments seeking legal advice increased significantly. Human Resources, Procurement and Commercial departments have used the service mostly. However, most units do not seek legal advice in due time or do not use the service at all. Legal Unit continues to encourage departments and Units to use the service before any action is taken or at due time when any legal action is required. Legal Unit is committed on lawful and proper conduct of the company's business.

During the FY 2020-2021, Corporate Compliance was put by the Unit, on its core agenda, ensuring that the Company and each employee obey all applicable laws and corporate guidelines. In this regard, in December 2020, the first ever Board of Directors of EUCL was established. Company Procedures Manual was revised in matters related to Human Resources management, provision of legal services and contract management to enable simple and clear

rules of compliance. Legal Unit provided support in in-house training of Procurement staff and ITC members on contract management and contract negotiation.

It is believed that in coming years, Legal Unit shall develop proposal for Corporate Compliance Policy to the Board of Directors. The Policy is expected to set clear compliance issues handling system for the Company. The Unit shall also play huge contribution in helping the Company being listed on Rwanda Stock Exchange Market. In-house trainings on anti-corruption, HR compliance, Contract Management, Case Management and Corporate Governance shall be conducted. Finally, once human resources will be available, the Unit shall introduce legal audit in the Company at least every financial year.

# **10 INFORMATION, COMMUNICATION AND TECHNOLOGY**

In the ICT Unit of EUCL, the year 2020-2021 was mainly marked by establishment and review of ICT guides being establishment of ICT strategic plan and road map of activities for the next 5 years and Review ICT policy and procedure manuals. There was an implementation of network redundancy by setting up new site for Data recovery site (yet to be tested and commissioned), Process automation and implementation of integrations of IBMS with legacy and third-party systems. There was an establishment of an integration with RRA, Banks and online portal (Web Self-services). There was an improvement of ICT support and maintenance of ICT services across all department/units. These achievements contributed to significant changes within EUCL and REG holding objectives and ambitions. These changes will continue to contribute to increasing efficiency and effectiveness in the corporation.

# 10.1 Establishment of ICT Strategy for next 5 Years & Review of ICT policy and procedure manuals.

With the current world, ICT is no longer just ICT support. Rather, ICT became an enabler of all other activities and processes within companies and institutions towards efficiency, productivity, and quick service delivery.

In our Case, we have worked and developed ICT strategies to support overall objectives and targets of the company and improve efficiency and effectiveness in of REG and EUCL in planning, generation, transmission, distribution and support activities and services. Note that, both ICT strategies and reviewed policy and Procedure manuals have been initiated, established, and got approved all approvals up to final one which is Board of Director of REG.

We have also reviewed and aligned the ICT policy and procedure manuals with the strategic plan to meet REG/EUCL today's world.

#### 10.2 IT Systems Infrastructure

#### 10.2.1 Disaster recovery site construction and setup (temporary)

Most of main activities have been already established and we are just remaining with the last 2 steps that consists of testing and commissioning and deployment of Databases and systems. These two activities are to continue with following year planned to be completed soon in next FY.

- Completed all activities related to Site survey and civil works,
- Electrical installation and a 30KVA UPS were installed for the Disaster recovery room.
- Network connectivity were set to and from Kigoma EUCL Disaster recovery site. A direct link over dark fiber between DR-DC was created over REG fiber optic line. A Broadband link from BSC was set successfully at the DR site.
- Servers were configured and mounted in rack
- SAN switches were configured.
- BSC broadband was configured and commissioned.
- A Sophos firewall was configured for Broadband connectivity and VPN profile created

- One of the domain controllers was upgraded from windows server 2012 to windows server 2016
- Local Certificate authority were installed on REG domain controller for ISE purposes.

#### Network

Year	2020-2021
Total Number of Branches	33
Branches on REG Fibber Optic	24
Branches on MTN link	9
Branches with Cabled LAN	33
Substations	26
Power Plants	9

New Branches and existing branches that relocated were connected to REG HQ either using REG Fibber optic channel or through MTN link where the fibber was not accessible. Cabling of some offices were also done. And Some offices were upgraded to higher internet capacity given the growing number of users and IBMS bandwidth requirements.

#### 10.2.2 Relocated Branches/Sites and connectivity status

- *REG stores (Gishanga)* site was decommissioned and relocated to Bugesera/Kanzenze. The site is now connected with MTN P2P
- Kiyovu offices have been relocated to Kimihurura, and connected over REG fiber optic line
- Kicukiro branch was relocated, and connected over REG fiber optic line

10.2.3 Cabling was done / revamped at the following sites: REG/EUCL HQ,

- Kayonza brach,
- Kicukiro Branch
- REG stores (Kanzenze)

#	Site Name	Type of Connection	Network Cabling Status
1	Bugesera branch	MTN VPN	Cabled
2	Burera Branch	REG Fiber optic	Cabled
3	Gakenke Branch	MTN VPN	Cabled
4	Gatsibo branch	REG Fiber optic	Cabled/Will be renovated
5	Gicumbi branch	MTN VPN	Not Cabled
6	Gisagara Branch	MTN VPN	Cabled
7	Huye branch+Southern Hub	REG Fiber optic	Cabled
8	Jabana Branch	MTN VPN	Cabled
9	Kacyiru Branch	MTN VPN	Cabled
10	Kamonyi Branch	MTN VPN	Cabled
11	Kanombe Branch	MTN VPN	Cabled
12	Karongi branch+Western Hub	<b>REG Fiber optic</b>	Cabled/Will be renovated
13	Kayonza branch+Eastern Hub	<b>REG</b> Fiber optic	Cabled
14	Kicukiro Branch	REG Fiber optic	Cabled
15	Kirehe branch	<b>REG Fiber optic</b>	Not Cabled
16	Muhanga branch	<b>REG Fiber optic</b>	Cabled
17	Musanze branch+Northern Hub	REG Fiber optic	Cabled
18	Ngoma branch	REG Fiber optic	Not Cabled
19	Ngororero branch	REG Fiber optic	Cabled
20	Nyabihu branch	<b>REG Fiber optic</b>	Cabled
21	Nyagatare branch	<b>REG</b> Fiber optic	Cabled
22	Nyamagabe Branch	<b>REG Fiber optic</b>	Cabled
23	Nyamasheke Branch	<b>REG</b> Fiber optic	cabled
24	Nyanza Branch	REG Fiber optic	Cabled
25	Nyarugenge Branch	MTN VPN	Cabled
26	Nyaruguru branch	MTN VPN	Cabled
27	Remera Branch	REG Fiber optic	Cabled
28	Rubavu branch	REG Fiber optic	Cabled
29	Ruhango branch	REG Fiber optic	Cabled
30	Rulindo branch	<b>REG</b> Fiber optic	Cabled
31	Rusizi branch	REG Fiber optic	Cabled
32	Rutsiro branch	REG Fiber optic	Cabled
33	Rwamangana branch	REG Fiber optic	Cabled
34	EUCL/REG Headquarters	REG Fiber optic, BSC	Cabled
		Fiber optic, MTN Fiber Optic	
35	Gikondo Dispatching (NCC)	REG Fiber optic	cabled
36	Kigali Hub	REG Fiber optic	Not Cabled

# 10.2.4 EUCL Branches Network Infrastructure status

Table 28 EUCL Branches Network Infrastructure status

#	Site Name	2019/2020	2020/2021		
1	Bugesera branch	2Mbps	3Mbps		
2	Gakenke Branch	2Mbps	3Mbps		
3	Gicumbi branch	2Mbps	3Mbps		
4	Gisagara Branch	2Mbps	3Mbps		
5	Kacyiru Branch	2Mbps	3Mbps		
6	Kamonyi Branch	2Mbps	3Mbps		
7	Kanombe Branch	2Mbps	3Mbps		
8	Nyarugenge Branch	2Mbps	3Mbps		
9	Nyaruguru branch	2Mbps	3Mbps		
10	EUCL/REG Headquarters VPN	10 Mbps	20 Mbps		
11	Gikondo Dispatching (NCC)	2Mbps	3Mbps		
12	EUCL/REG Headquarters Broadband	10Mbps	40Mbps		
13	Smart Meter link	2Mbps	3Mbps		

#### 10.2.5 Bandwidth Upgrade for MTN links as follow:

Table 29 Bandwidth Upgrade for MTN links

#### 10.2.6 Network Renovation Project Status

- Installed and commissioned the Cisco Identity engine for network security and Authentication.
- Installed and commissioned two Wireless Controllers in redundancy & 70 Access points
- Upgrade the network configurations (Switches, routers) at all branches and power plants
- Upgraded the network configuration at EUCL HQ (Switches, routers, Firewalls)
- BSC Links was relocated to HQ from Gikondo and port speed upgraded to 1G from 100 Mbps.
- There has been a re-cabling of EUCL Headquarters offices and technical room

#### 10.2.7 IT Equipment Management

- We worked with BSC to install configurations and testing of screens displays and Video conference at REG, EDCL & EUCL.
- A list of 74 Desktop PC, 57 Monitors, 41 Printers, 4 Scanners, 14 Laptops, 41 Switches/routers, 49 office phone devices, and 15 UPS, were submitted to Logistics and Administration unit requesting their proper disposal/decommissioning.
- IT assets were inventoried "physical verification" from all sites during the activity of preventive maintenance.

#### **10.2.8 Business Applications**

#### **IBMS Implementation**

#### Phase 1: ERP.

- ERP was completed and commissioned in July 2017. The migration of the ERP to the supplied hardware was completed and fully done by the IT unit. Post Go live implementation support in regard to the integration between ERP and CMS/IRMS continues. Users are getting familiar with the system and financial reports are being produced from the system.
- Data exchange with other systems like Integration with legacy systems (CMS, Prepayment system (SUPRIMA) and MDM are at the final stage of testing and validation. Integrations with RRA for tax declarations and all Banks are also completed and few issues are being stabilized.

#### Challenges:

- REG is yet to gain full competence to produce reports and thus still need to depend on consultant to provide reports customization.
- Advanced training for technical team and a development license is needed.
- IFS has declined to do with REG any new engagement prior the close/sign off of the already signed contract. This has affected the changes on reports customization to meet company new requirements, budget control, plan to implement CMMS, e-recruitment, time & attendance as part of enhancements to continue automation of processes that are still manual or not yet integrated with existing IBMS/IFS.
- IFS are yet to close-out completely the arrangements for installing a Local Partnership, this sometimes affect the ease with REG obtain fast response to queries or service request.

#### Phase -2 CMS/IRMS Development

• CMS/IRMS went live end of April 2019. The integration aspects have also been almost finalized but still with some issues fixing that are being attended to by consultants from all vendors' sides. These relate to both legacy systems like the ERP, MDMS, Rwanda Revenue Authority for billing certification and Banks.

Note that, NID, Land center and RDB integration have been put on hold due to some other critical issues related to system stability yet to be fixed prior to start new engagements.

Other two pending integrations were postponed due to the systems not being ready namely GIS has resumed and still ongoing. SCADA that is awaiting yet to be upgraded. These integrations will be done once these systems are ready.

#### Challenges:

- Some banks have finalized the integration, but some manual payments are still being noticed.
- Dependency of other business partners like Huawei, instability in network connectivity, ISP, VPN connectivity's related issues

#### Phase - 3 Additional components/ features needed in IBMS

There are additional add-ons/features within IBMS that were not previously catered for in the contract but are needed in order to automate operational activities within REG, these are:

- CMMS: for asset maintenance and monitoring
- E-recruitment: For capturing application online then process continue up to hiring then employment. Process initiated and is on going
- E-procurement: for capturing procurement processes from bids publishing through submission until contracts signing.
- Development license for writing reports and developing small add-ons
- Electronic archiving and document tracking,
- Time attendance integrated with finger print.
- Contract management integrated with procurement, finance. The trainings have been done and implementation is planned to start with FY 2021-2022.

Application Name	Description	Status and Challenges	Recommendations
Fleet Management System: Zon Control	<ul><li>monitoring and reporting.</li><li>Car zone controls</li></ul>	Hosted on cloud system and deployed since October 2016, it has been renewed in 2021 and working normally.	Othersofficerswith
Time Attendance system	<ul> <li>Fingerprint devices,</li> <li>HR Time attendance management system,</li> <li>Access control devices for monitoring access to restricted areas</li> </ul>	<ul> <li>Deployed and operating normally at the following sites:</li> <li><i>REG/EUCL/EDCL</i> <i>Headquarters</i></li> <li><i>National</i> <i>Electricity Control</i> <i>Centre/Gikondo.</i></li> </ul>	Other offices with large number f employees shall also be considered in the next financial year.

#### 10.2.9 Other Applications implementations:

Application	Description	Status and Challenges	Recommendations
Name	~ 1 1		
Prepaid	Cash-power and	It has been upgraded to the version 6.0.8.0	
vending	prepaid	which is integrated with CMS and banks	
system:	customers	for top up of super dealers.	
Suprima	management.	Seven new super dealers' systems have	
	Revenue	been integrated and vending electricity	
	generating	smoothly	
	system.		
EPIS	It was used to	It is decommissioned form running with	
	manage post-paid	CMS. All operations are now handled	
	customers and	within CMS.	
	revenue		
	generation		
PSSE	Power systems	The system is running smoothly	
	simulator, it is		
	used by our		
	planning		
	department for		
	power planning		
	operations		
Website	Management of	It has been revamped in 2018 and is	
	REG information	working perfectly. It carries REG and its	
	sharing to the	subsidiary companies' information to the	
	public		
QuickBooks	Accounting	It has been phased out since June 2019. All	
	management	operations are now handled within IFS.	
	system used only		
	by finance		
	department		

Table 30 Other Applications implementations

# **11 COMMERCIAL SERVICE PERFORMANCE**

The total number of customers on **prepaid is 1,267,702** and **postpaid 3263** (including 44 customers moved from Prepaid to Postpaid) making a **general total of 1,270,965 customers by end June 2021** compared to 1,092,081 by end June 2020. New electricity connections realized were **178,884 during the period of 2020-2021**.

Electricity customers billed for both prepayment and post payment, including exports to Uganda through Cyanika-Kisoro consumed **766,606,204.22 KWH**.

The total collection on prepayment, post payment and works were **Rwf 154,361,119,629**, the collection rate was 98%.

During the period of fiscal year 2020-2021 the Energy Efficiency and Revenue Protection unit in its activities inspected 7,337 customers and discovered the following irregularities: 58 tempered meters, 31 faulty meters, 3 Unused meters, 9 Stolen meters,60 thefts cases and 66 Complaints handed to RIB for further investigation and prosecution. The total amount recovered from Fines & regularization bills is equivalent to Rwf 134,278,833. The total energy loss identified is equivalent to 218,105.64 kWh.

The Revenue Protection Program (RPP) Funded by the World Bank has been implemented and 2000 smart meters have been installed at the premises of Postpaid Customers. An additional 1000 smart meters has been acquired from the World Bank to cover the remaining customers. Currently the automated Metering System (MDM) is now linked to the billing system (CMS) and results yielded will enable data from customers' meters to be pushed into Customer Management System.

In a bid to improve service delivery, different activities were performed like reviewed customer contract and presented it to the Senior Management for Approval, coordinated distribution of meters to all branches for both replacement and supplementary, Prepare and submitted customer satisfaction survey for all four quarters, basing on RGB service delivery report to REG, organized and participated in the inspection on assessing working environment in EUCL Branches, Substations, and Power plants.

#### 11.1.1 New Connections' Performance Per Branch

Rubavu, Kirehe and Burera were the top three branches in rolling out the electricity to citizens in this fiscal year. The new **electricity connections** realized were **178,884 during the period of 2020-2021**.

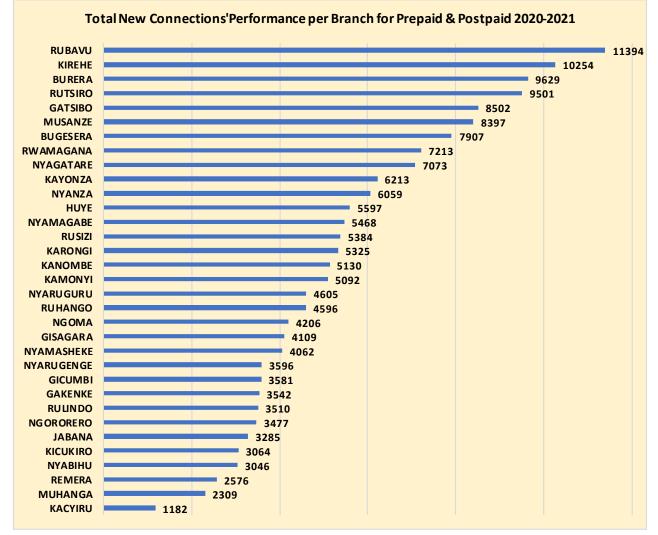


Figure 13 : New Connection performance per Branch for 2018-2019

The table below gives statistics of new connections by branch

81-	Duran ala	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	A	Mav-21	Jun-21	Total
No	Branch BUGESERA	519	Aug-20 361	Sep-20 812	904	827	688	Jan-21 691	663	1VIAT-21 550	Apr-21 640	626	Jun-21 590	
	BUGESERA	0.10	205	962							640 811	0.00		7,871
<u> </u>		224			531	987	1008	1562	716	409		1050	1161	9,626
<u> </u>	GAKENKE	21	127	203	346	280	608	501	466	322	163	422	76	3,535
<u> </u>	GATSIBO	406	231	203	443	4619	1473	271	191	139	96	226	199	8,497
	GICUMBI	286	300	347	461	353	345	207	212	327	187	202	349	3,576
6		401	326	369	352	402	368	232	375	422	280	258	321	4,106
7	HUYE	177	109	330	792	462	1361	458	247	551	170	373	565	5,595
8		266	165	277	234	234	220	160	283	338	355	376	351	3,259
9	laterino	98	85	103	69	137	110	71	57	145	92	73	115	1,155
10	KAMONYI	335	322	352	413	544	353	319	330	563	554	711	293	5,089
11	KANOMBE	270	354	336	411	449	491	383	336	553	252	653	604	5,092
12	KARONGI	479	616	424	462	409	512	450	430	458	293	297	494	5,324
13	KAYONZA	381	253	497	2031	1346	348	181	197	228	222	190	328	6,202
14	KICUKIRO	143	183	364	259	237	182	115	306	314	236	350	344	3,033
15	KIREHE	246	344	454	744	614	642	939	2980	2073	662	333	221	10,252
16	MUHANGA	222	228	198	192	186	302	195	161	151	144	133	193	2,305
17	MUSANZE	607	245	557	725	799	1043	924	621	927	675	743	527	8,393
18	NGOMA	314	211	335	233	1262	199	136	126	221	191	506	472	4,206
19	NGORORERO	121	171	238	286	244	358	277	226	247	219	606	484	3,477
20	NYABIHU	163	246	275	279	199	208	215	207	177	227	365	484	3,045
21	NYAGATARE	564	456	233	462	1019	556	634	855	648	617	711	308	7,063
22	NYAMAGABE	367	714	1286	1615	344	474	246	116	90	90	71	49	5,462
23	NYAMASHEKE	288	236	417	451	295	304	312	355	434	365	396	206	4,059
24	NYANZA	132	615	719	960	275	667	163	170	160	539	763	892	6,055
25	NYARUGENGE	199	91	190	78	117	126	91	197	208	656	551	1069	3,573
26	NYARUGURU	377	380	294	428	525	215	417	420	414	506	335	294	4,605
27	REMERA	224	131	186	193	235	152	132	225	274	166	220	406	2,544
28	RUBAVU	311	143	635	295	733	1152	1610	1341	1398	1543	1179	1051	11,391
29	RUHANGO	165	221	434	359	458	400	309	276	361	411	653	546	4,593
	RULINDO	457	187	402	251	161	274	214	262	586	178	336	198	3.506
	RUSIZI	416	302	668	315	317	627	421	595	454	403	432	429	5,379
	RUTSIRO	282	182	537	548	703	606	1189	712	654	832	1606	1642	9.493
	RWAMAGANA	407	193	530	399	635	734	1776	696	779	241	580	230	7.200
	S/Prepaid	9.868	8.933	14.167	16.521	20.407	17.106	15.801	15.350	15.575	13.016	16.326	15.491	178,561
	S/Postpaid	24	18	9	34	36	21	13,001	35	27	31	35	40	323
	Total	9,892	8,951	14,176	16,555	20,443	17,127	15,814	15,385	15,602	13,047	16,361	15,531	178,884

Table 31 Statistics of new connections by branch

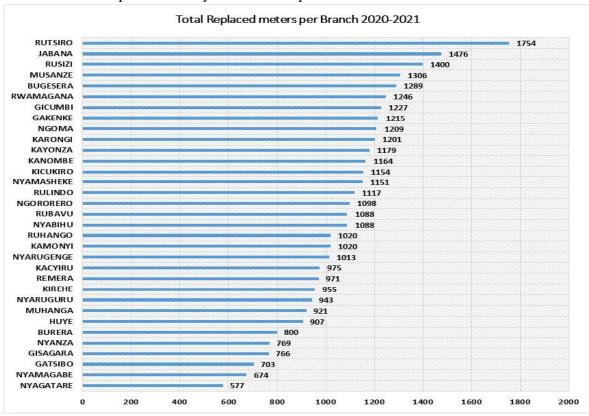
#### 11.2 Replacement meters per Branch

During the FY 2020/2021, a total number of 32,933 meters compared to a replacement of 32,294 meters in 2019/2020. Below is the status of meter replacement in each branch.

The meters' failure rate was very high in Rutsiro, Jabana and Rusizi while Rutsiro, Gicumbi, and Jabana the highest in the previous year.

No	Branch	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Grand Total
1	BUGESERA	106	7	115	39	195	131	23	167	184	40	124	158	1,289
	BURERA	94	7	101	9	123	65	33	60	109		94	97	800
	GAKENKE	24	1	168	15	171	142	117	14	210	126	40	187	1.215
4	GATSIBO	61	24	72	17	93	98	69	47	92	33	50	47	703
5	GICUMBI	115	10	156	54	166	128	118	74	99	62	105	140	1.227
6	GISAGARA	59	48	32	46	49	53	60	73	111	69	107	59	766
7	HUYE	103	24	85	46	67	82	75	103	124	78	69	51	907
8	JABANA	159	30	169	39	132	131	54	184	121	108	118	231	1,476
9	KACYIRU	79	53	77	48	109	75	66	113	103	79	81	92	975
10	KAMONYI	45	25	57	41	84	97	51	197	148	38	180	57	1,020
11	KANOMBE	63	38	73	55	121	115	118	168	102	115	72	124	1,164
12	KARONGI	122	13	107	17	75	189	23	121	108	19	175	232	1,201
13	KAYONZA	114	11	133	18	196	91	48	155	100	105	122	86	1,179
14	KICUKIRO	73	68	97	47	175	95	38	226	99	71	88	77	1,154
15	KIREHE	54	9	86	39	201	80	43	73	121	34	103	112	955
16	MUHANGA	47	64	73	37	71	84	101	121	131	48	99	45	921
17	MUSANZE	101	27	190	10	163	108	38	112	120	89	145	203	1,306
18	NGOMA	77	63	93	97	123	107	108	115	136	109	76	105	1,209
19	NGORORERO	151	23	55	58	97	110	71	119	138	3	153	120	1,098
20	NYABIHU	106	8	60	35	101	174	38	82	205	60	124	95	1,088
21	NYAGATARE	45	34	39	55	60	86	55	41	35	44	45	38	577
22	NYAMAGABE	46	33	61	32	40	50	51	69	133	30	84	45	674
23	NYAMASHEKE	139	5	170	1	294	16	45	59	136	17	127	142	1,151
24	NYANZA	32	34	32	69	28	36	137	123	99	47	62	70	769
25	NYARUGENGE	61	44	77	36	134	106	55	144	136	64	82	74	1,013
26	NYARUGURU	90	49	42	49	77	73	72	94	117	127	44	109	943
27	REMERA	38	12	68	38	112	96	41	133	143	59	86	145	971
28	RUBAVU	30	7	61	84	150	117	123	99	231	82	77	27	1,088
29	RUHANGO	32	27	116	45	91	87	104	103	172	19	128	96	1,020
30	RULINDO	54	33	137	37	119	190	37	132	132	58	85	103	1,117
31	RUSIZI	143	30	69	110	132	249	53	99	196	43	157	119	1,400
32	RUTSIRO	329	13	82	130	239	129	24	154	173	27	208	246	1,754
33	RWAMAGANA	114	4	117	43	174	132	90	101	184	77	85	125	1,246
	Total	2,906	878	3,070	1,496	4,162	3,522	2,179	3,675	4,448	1,988	3,395	3,657	35,376
	Repaired meters	66	117	300	251	131	229	92	293	201	210	223	330	2443
	Total	2,840	761	2,770	1,245	4,031	3,293	2,087	3,382	4,247	1,778	3,172	3,327	32,933

Table 32 Replacement meters per Branch



#### Chart of Meters replacements by Branch are represented as follow:

Figure 14 Replacement meters per Branch

# 11.3 Monthly customers' evolution

The evolution of customer database was as follow:

Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
1,101,955	1,110,912	1,125,104	1,141,644	1,162,069	1,179,215	1,195,034	1,210,419	1,225,944	1,239,103	1,255,474	1,271,012

Table 33 Customer database evolution

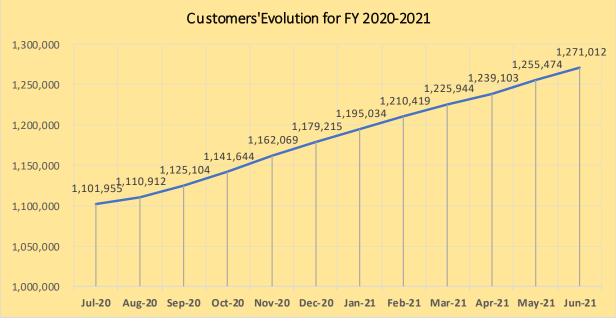


Figure 15: Monthly customers' evolution

At the end of June 2021, the customer base was 1,271,012 customers

# 11.4 Electricity Billing and Collection

During the fiscal year 2020/2021, the Utility billed in total Rwf 157.906 billion compared to Rwf 137.91 billion bills in 2019/2020 which represents 14.49% increase.

	В	illing vs Collec	tions for the	first Financ	ial Year 2020	/2021				
					Billing					
	Post Paid	Pre-paid	Works	Dark Fiber	UETCL	OWN CONSUMPTION	PUBLIC LIGHTING	Total Amount Billed		
Jul-20	6,825,511,548	5,394,091,987	68,770,261	-	27,774,417	93,664,943	349,040,199	12,316,148,214		
Aug-20	6,667,380,528	5,519,806,780	164,734,262	-	29,235,248	91,139,741	342,967,738	12,381,156,818		
Sep-20	6,681,181,607	5,373,945,989	103,256,145	-	27,831,546	101,171,964	334,035,285	12,186,215,287		
Oct-20	6,970,968,689	5,664,706,043	135,227,961	-	32,505,009	114,147,943	326,907,276	12,803,407,702		
Nov-20	7,228,409,554	5,538,362,405	27,783,053	113,423,861	34,937,434	109,156,220	350,491,392	12,942,916,307		
Dec-20	7,212,150,411	5,935,997,631	1,696,328,983	110,995,068	34,239,104	121,311,295	358,144,977	14,989,711,197		
Jan-21	6,959,983,052	5,415,893,226	183,657,432	-	33,213,782	110,649,875	342,487,560	12,592,747,492		
Feb-21	6,769,424,327	5,149,165,666	661,793,835		29,884,044	95,346,730	352,410,659	12,610,267,872		
Mar-21	7,010,210,701	6,140,592,675	410,534,942		34,724,123	104,314,799	331,125,781	13,596,062,441		
Apr-21	7,340,394,389	6,020,185,293	311,627,873	117,127,251	36,182,075	99,146,960	337,550,638	13,825,516,880		
May-21	7,051,238,848	6,162,407,989	133,312,468		40,537,123	97,429,147	332,556,077	13,387,496,428		
Jun-21	7,855,055,716	6,115,964,997	264,425,247		39,196,690	102,261,976	351,501,458	14,274,642,650		
Total	84,571,909,370	68,431,120,681	4,161,452,463	341,546,180	400,260,594	1,239,741,593	4,109,219,039	157,906,289,288		
	Collection									
	Post Paid	Pre-paid	Works	Dark Fiber	UETCL	OWN CONSUMPTION	PUBLIC LIGHTING	Total Cash Collections		
Jul-20	6,361,142,306	5,394,091,987	68,770,261	-	28,682,498	93,664,943	349,040,199	11,852,687,052		
Aug-20	6,672,053,228	5,519,806,780	164,734,262	-	29,950,722	91,139,741	342,967,738	12,386,544,992		
Sep-20	6,386,951,841	5,373,945,989	103,256,145	-	28,472,157	101,171,964	334,035,285	11,892,626,132		
Oct-20	6,993,879,009	5,664,706,043	135,227,961	-	30,510,128	114,147,943	326,907,276	12,824,323,141		
Nov-20	6,724,311,267	5,538,362,405	27,783,053	-	34,937,434	109,156,220	350,491,392	12,325,394,159		
Dec-20	6,426,061,022	5,935,997,631	1,691,769,984	224,119,931	34,852,675	121,311,295	358,144,977	14,312,801,243		
Jan-21	5,331,748,766	5,415,893,226	183,657,432		33,343,089	110,649,875	342,487,560	10,964,642,512		
Feb-21	5,203,434,345	5,149,165,666	661,793,835		30,514,936	95,346,730	352,410,659	11,044,908,782		
Mar-21	6,804,570,900	6,140,592,675	396,923,713		34,729,975	104,314,799	331,125,781	13,376,817,263		
Apr-21	5,948,590,512	6,020,185,293	311,627,873	333,227,355	36,779,520	99,146,960	337,550,638	12,650,410,552		
May-21	6,069,569,918	6,162,407,989	133,312,468			97,429,147	332,556,077	12,365,290,375		
Jun-21	6,635,322,548	6,115,964,997	264,425,247			102,261,976	351,501,458	13,015,712,792		
Total	75,557,635,661	68,431,120,681	4,143,282,235	557,347,286	322,773,133	1,239,741,593	4,109,219,039	149,012,158,996		
	5,348,960,633	Money on Public light	ting & Own Consum	ption				5,348,960,633		
Percentage	96%	100%	100%		81%	100%	100%	98%		
Note:	Note: Postpaid Col Public institutions t		g Money on Publ	ic lighting of (4,	109,219,039), <mark>EUC</mark> L	own Consumption	(1,239,741,593) & VA	AT exclude on some		

Table 34: Billing Vs Collections

## 11.5 Prepayment kWh billed

to Brandt	CL-Sol	Aug 20	Sep-20	Oc-20	Nov-20	Dec-20	341-21	Feb-Z	Mar-21	Apr-21	May-21	Jun-21	Grand TOTAL
1 KACYURU	2,602,58,10	2,653(84.00	2,07,650,80	2,7%,93340	278,465.30	2,95,407.70	2,730,461.70	248,757.90	2,875,483.90	2842,862.42	2,98,006 %	3,06456555	33,410,617.08
2 REWERA	2,778,281.00	2,890,455.50	2,7545,15,40	2,936,23350	2891,25890	\$02095230	2,740, 5550	263,67560	\$015 709.70	2905,788.15	3,075,742.22	3,0400.25	34,611,155 2
BROUKRO	2,049,681,70	2,124,917.30	2,110,849.90	2,25, 10,80	2106,891-90	2,281,367.30	2,120,95320	19842930	2,247,723.00	2298,560.87	2,398,657197	2,316816	26176,521.00
4 JABANA	1,398,877.10	1,421,402,70	1,39496.10	1,5(8,46)20	146,13400	1540,08410	1,35,5300	12391760	1,503,913.90	143,04574	1,471,867/8	1,468113.56	17,230,733.32
SKANCINE	1,591, 283,40	t,601,427.80	1,65,5%.00	1,672,860,70	162,6318	1,781,926-30	1,68,8940	155,980.00	1,771,804.10	188,248.7	1,832,107.80	1,88359428	20,510,723.3
6NARUCHUE	2,094;83:60	2,283,376.60	2, 294, 788, 70	2,239,42,83	228/4140	2,415,709:00	2,042,817.40	1855380	2214156.63	231036972	2,312,953:65	2,41322/54	25,5 22,705 21
7MAHANGA	445, 387.00	465,626.00	445810	49,2550	499,337.80	48575 D	437,664.10	48,616 3	465,765,70	45,1564	477,330(6)	4%586.21	5,435,878-0
8KAWOWI	631,963.00	65205830	94558.00	757,916,00	68,038,50	62(481.90	H2,0160	661,627.70	796450.00	78,1665	768,201.30	6708.83	8,359,211,30
SHUE	512(01.90	515 453.70	528568.90	538,987.90	502,244 70	546,707.80	54,82.80	516,807.60	5976140	578,594 (2)	627,364:98	91,330,47	6,595,585 11
10 NANA	243454.60	250,2510	2209.40	252, 328,10	29,91830	28,862.60	28,3630	23,545,90	312,247,70	25,110.0	28,981.98	21,997.87	314,859-6
11 MARIGURU	133 253.00	123 366.20	835840	147,285.90	12,42700	14,03800	12,9840	129,842.40	15530960	15,5360	195,794.22	5199289	1,6BASZ B
12RHANGD	275,764.80	260664.10	2428.40	26, 38, 30	272,206:80	28,40620	25,05370	28,685,70	348(07.70	33,835.82	32,670.07	\$364.20	3,582,292,08
130SAGARA	216,289,80	21250210	205596.70	207,945.60	212,97250	228,51040	25,9180	32,315.70	2750240	25,51808	238,07054	2362.79	2,903,617.92
14NAMAGABE	20349440	192,600,80	91,482,70	187,98300	26,045.40	20,77480	28, 50 30	19221140	238,387.80	20,6115	25,34657	25970.85	2,505,999168
15 IWAMAGANA	499,40.40	542 707.20	559560	597,223.80	558,017.30	605,231.10	54,3520	56,94040	634987.90	62,2219	68521.16	629640	6,918,807.64
16 KAYONDA	411,159,60	391,113.30	\$685.0	48,0580	48,471 2	49,81600	49,8140	43,440.20	544(01)60	53(2)1.9	529,939.4	470,504.98	5,39,511-4
17GA 5/80	221,18750	208,459,10	20103620	18,25,80	195,453(0)	26,915.50	207,04200	214,031.50	2758540	294,392.68	25,04032	371352	1,677,A25 %
18NOONE	20(8)470	272 11080	236850	15,2010	28,374 90	20,37600	FA 3550	28,835.10	508(\$0.30	38,430.5	3R,207 %	25558.87	3,526,055 77
19KRBHE	283,4(7.30)	240101.90	34250.60	246,985.90	293,788 70	29,59440	25, 217,70	247,24330	315,922.80	302,214.08	35,684.25	28516421	3,2 2,356 (5)
20 BLEISERA	74797630	774 26.10	24540.00	816,7%10	705,556.90	77,473@	74,0820	79,802 20	844,976,80	810,415 35	79,702番	807#5t	9,270,666 52
21WAGADAE	535-459.90	515 300 30	554250	519,581.50	58,436,80	516,70710	58,4710	598,337.40	626527.40	590,630 22	58,5294	\$1,0502	555,182.07
22981.000	205 161.80	320 81.70	2025950	\$18,16550	316,562,90	328,343 50	314,04440	306,233/80	383 91 4.00	36,327.0	38,355.87	31,84.38	3,988,429.36
23CAKENICE	155,047.10	154612.50	5082.90	15,5410	156,694,80	166,942.70	19,8560	15,598.40	191956.80	25,661.4	20,414 3	0540,00	2,0%,785.0
24 MEANE	882 7050	872,167.90	82,68,20	95,08370	917,12780	945,233(1)	88,755.92	86,052:0	931,820,20	993,07451	1,046,70306	1,02799843	11,08,1380
25 GOUNG	349,223,30	287,970.10	24774.90	308,915,50	2658240	35,876.80	28,87.00	28,25530	373962.50	33,152(0)	25,918,93	327327.66	3,257,366.28
26 BURERA	232,899,70	260 8 6 00	2662.80	392,280,70	24/96730	292,390.20	26, 188,40	221,239.40	305 905.00	28,141.02	318,450.17	23,98.25	3,218,438,74
27WABHU	19581870	195 780.50	\$2,691.50	197,02710	204,180.00	208,495,60	19,73300	18,142,10	215 2000	214,97445	227,987.94	2517478	2,48,592,28
28 RUTSHO	11208300	115 46.70	104857.90	1課,課200	10,517.00	120,048.80	12,96160	111,668.00	124 26.70	12(389.2)	18,7029	182 33 94	1420250
298.5/2	598,85.90	563 468 50	9548.20	580,203.40	60,305.00	609,771:90	58,8240	6(8,186.8)	718 99010	70254136	710,480 65	6415451	7,514,475.82
STANAME	229,280.10	241,420.50	37,487.30	25,3820	26,415,80	248,154.90	22, 1610	238,348,20	202744.90	284,043 14	36.915.8	2075629	3,034,050.88
31 KARONG	321,114,20	311,553.10	399,232.90	307, 79180	35,64510	335,369.30	319,06250	212,954:00	372 194,20	326,310.27	326,3331.25	\$929.11	3,88,902.88
32WGORORED	132 204,40	131,827.90	8470A20	13,03,00	14,72330	12,411.0	18,2720	134,188 (0	161,49,80	19(824.9)	12(3)12	5985233	1,736,871.25
SI RUBAVU	871,222.50	157,847.60	827,196,80	946,336,00	92,925 30	01 303 10	936,31120	882,407.10	051,907.90	940,9383.29	92,611.04	993246	11,167,786.28
Grand Total	22,560,786.00	23 107 201 30	72 532 790.80	23,560, 376,20	23 171 699 10	24,656,628,90	72842 77210	21, 675, 869, 10	75,405,284,60	24977 202 05	25,620,642,59	25.426.899.91	285 638 713 75

Table 35: Prepayment Kwh billed

# 11.6 Postpaid kWh billed

No	Branch	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Grand TOTAL
1	KACYIRU	2,902,347.00	2,826,475.00	2,840,783.50	2,851,914.91	2,958,274.88	3,066,696.65	2,691,181.44	2,862,131.32	2,663,483.94	3,116,834.97	3,200,072.63	3,381,660.04	35,361,856
2	REMERA	4,447,014.40	4,540,341.73	4,163,036.95	4,621,979.56	4,276,419.40	3,959,616.65	3,855,051.61	3,838,229.26	4,596,054.93	4,476,546.32	4,268,408.60	4,455,334.37	51,498,034
3	KICUKIRO	1,392,024.00	1,519,546.56	1,430,870.44	1,486,748.86	1,685,232.28	1,639,505.38	1,469,021.70	1,383,178.09	1,470,454.70	1,464,421.94	1,466,116.28	1,565,411.70	17,972,532
4	JABANA	3,703,720.00	3,553,676.60	3,987,747.64	4,484,359.76	4,522,170.79	4,394,300.79	4,235,877.04	4,232,822.68	3,933,566.02	3,948,955.41	4,019,908.92	4,528,045.35	49,545,151
5	KANOMBE	1,449,761.82	1,491,240.67	1,418,976.10	1,551,347.55	1,596,891.28	1,661,071.60	1,584,177.50	1,576,468.12	1,650,452.26	1,630,799.85	1,635,795.26	1,757,749.03	19,004,731
6	NYARUGENGE	2,948,433.00	3,201,871.00	3,286,072.00	3,427,360.00	3,382,016.00	3,507,044.00	3,326,658.09	3,035,337.76	3,070,014.08	3,425,197.50	3,468,744.15	3,860,060.26	39,938,808
7	MUHANGA	244,908.00	237,500.54	234,454.46	221,865.75	232,690.58	234,945.89	248,878.23	254,891.06	244,719.43	282,759.10	262,580.37	296,311.47	2,996,505
8	KAMONYI	219,883.00	253,837.57	240,534.43	367,490.24	244,005.22	253,787.44	292,751.05	345,812.55	358,344.04	425,830.79	449,415.21	430,414.50	3,882,106
9	HUYE	562,502.00	548,955.90	536,823.10	546,579.76	606,427.93	584,739.45	614,214.95	608,471.41	612,824.83	616,876.08	640,168.24	722,364.31	7,200,948
10	NYANZA	338,043.00	304,289.98	308,641.02	322,274.25	340,811.71	339,493.00	317,923.41	338,358.96	322,930.64	346,319.51	315,569.88	384,399.28	3,979,055
11	NYARUGURU	276,378.52	224,697.40	246,537.60	341,722.01	415,028.35	395,602.51	425,333.04	371,607.27	402,229.49	391,803.98	487,538.96	400,202.05	4,378,681
12	RUHANGO	176,344.00	185,197.09	178,130.91	178,727.70	180,939.26	190,567.97	193,151.07	174,600.00	159,204.00	160,671.00	162,116.00	176,120.87	2,115,770
13	GISAGARA	187,487.00	178,930.03	161,037.97	274,837.39	287,651.32	348,230.20	333,336.62	498,666.51	616,999.22	502,904.07	473,898.98	496,349.84	4,360,329
14	NYAMAGABE	300,640.00	260,963.51	290,869.49	330,981.48	362,361.88	384,771.12	397,510.95	375,097.67	384,697.68	391,281.68	416,017.61	395,872.75	4,291,066
15	RWAMAGANA	3,133,404.00	3,682,754.24	3,648,352.76	4,064,998.89	3,716,791.41	3,376,885.32	3,329,771.19	3,124,474.57	2,859,239.47	3,494,397.99	3,792,359.25	3,889,040.06	42,112,469
16	KAYONZA	552,972.00	535,160.56	503,833.44	530,240.37	585,817.78	534,507.50	526,991.82	501,464.44	514,678.81	551,513.07	637,078.08	558,748.02	6,533,006
17	GATSIBO	243,447.97	221,473.52	233,576.48	248,881.18	224,825.71	239,851.00	221,898.92	261,363.60	276,962.82	262,112.18	218,134.60	285,505.21	2,938,033
18	NGOMA	142,950.00	165,144.99	170,465.21	159,590.33	142,829.59	161,011.83	180,107.28	176,787.76	166,049.50	160,070.10	156,038.12	200,861.16	1,981,906
19	KIREHE	409,316.00	390,383.79	390,740.21	407,153.11	260,173.71	279,335.86	255,025.00	229,406.17	218,620.81	204,340.70	268,533.43	369,695.90	3,682,725
20	BUGESERA	2,774,290.00	2,785,292.36	2,690,411.64	2,336,703.97	2,103,028.46	2,454,957.98	2,756,837.88	2,410,588.00	3,789,372.07	3,212,575.53	3,020,382.61	3,728,213.24	34,062,654
21	NYAGATARE	666,613.00	713,212.54	560,355.46	530,734.11	510,771.73	568,831.34	513,417.76	445,748.06	543,708.34	556,466.50	539,286.26	632,939.99	6,782,085
22	RULINDO	503,148.00	476,096.50	520,062.50	584,051.47	625,901.41	614,259.26	607,623.25	576,877.11	644,006.02	688,090.38	663,288.50	633,157.32	7,136,562
23	GAKENKE	61,929.50	100,102.00	78,657.50	82,370.00	75,844.50	75,495.50	68,880.00	75,226.00	69,407.00	80,471.00	79,413.00	80,555.00	928,351
24	MUSANZE	548,738.00	670,380.00	1,092,292.50	1,396,527.50	1,254,802.00	1,206,443.00	1,690,921.00	1,389,630.00	1,322,917.00	1,529,734.00	1,178,636.50	1,812,490.50	15,093,512
25	GICUMBI	485,098.00	398,013.00	436,419.00	557,897.00	654,226.00	588,560.00	654,547.00	625,994.00	624,823.00	660,395.00	679,721.00	628,590.00	6,994,283
26	BURERA	143,889.00	157,097.60	168,661.40	155,415.60	153,597.00	149,240.00	139,377.00	160,174.00	164,472.00	165,603.00	175,796.00	172,505.00	1,905,828
27	NYABIHU	254,699.00	259,155.52	261,382.48	274,379.07	296,936.81	311,391.75	277,793.67	257,651.70	277,386.14	288,104.36	279,752.25	292,306.43	3,330,939
28	RUTSIRO	98,720.97	90,160.11	92,415.89	98,240.23	123,166.06	128,764.10	122,698.09	112,811.18	125,978.29	139,956.67	127,861.49	152,834.15	1,413,607
29	RUSIZI	6,450,159.00	5,192,052.01	5,335,896.31	4,874,646.26	6,338,097.49	5,954,982.05	5,575,611.76	4,730,917.86	5,573,476.07	5,591,973.30	3,591,052.54	5,599,306.67	64,808,171
30	NYAMASHEKE	527,416.21	442,594.10	410,312.33	525,119.07	584,587.43	622,598.89	604,284.56	521,491.04	583,325.04	601,597.60	679,529.83	633,777.52	6,736,634
31	KARONGI	345,114.00	275,970.87	268,841.13	359,336.76	448,911.28	429,954.26	409,563.89	420,136.65	409,109.63	412,822.24	424,950.26	411,624.49	4,616,335
32	NGORORERO	179,905.00	150,037.92	88,790.08	177,709.03	196,343.68	211,821.55	224,731.75	132,695.71	181,732.58	211,663.40	227,488.61	210,209.59	2,193,129
33	RUBAVU	1,896,563.00	1,268,443.66	1,280,118.08	1,150,352.64	1,333,305.48	1,440,279.53	1,281,865.13	1,191,447.56	1,225,130.47	1,340,016.25	1,435,779.52	1,367,573.30	16,210,875
	Total	38,567,858.39	37,301,048.87	37,556,100.01	39,522,535.81	40,720,878.41	40,309,543.37	39,427,013.65	37,240,558.07	40,056,370.32	41,333,105.47	39,441,432.94	44,510,229.37	475,986,674.68

Table 36: Total kWh for Postpaid from July to June 2019

# 11.7 Prepayment sales (Frw) per Branch

Braidi	11 20	Aug 20	50920	00.20	Nov 20	Dec 2	Jan 21	FebZL	Mar 21	Apr Z	May 21	L'aut	Grand TOTAL
CACYRU	65,8934	677/055-382	699,419,894	70,25,493	70950399	78,115,471	701,25,029	62,35,10	741,767,435	730393,476	785624	75,231,580	8 381,814,485
RENERA	711,278,123	73,915,988	702,393,694	75,074,188	729239906	780,022662	田橋 武5,8世	68.35.97	776,585,864	743,06,137	792,222,297	78991185	8,885,392,573
OCUMPO .	积功的	520,500,3%	\$5,999.667	530,748,905	512,455,922	55, B7, B7	\$791,66	42,051,26	\$1,494,590	554755700	581,299,289	\$75,587,154	638555,645
JABANA	329,571,680	33,231117	326,810,363	35,92,224	352,224,394	39,25,99	支1943.18	25,6335	BCAESE	33,62,67	37(934,538	34,85,809	4067,980,402
CANOME	378,406,085	408,963,070	381,307,488	410,237,778	395,455,402	43,07,96	411,95,69	37,96,98	463528	434,92,077	440.9260	45,13,766	491143,460
WARLENE	57,9561	576,593,677	\$5,794.23	52,06,637	580/014640	62,0455	30,347,305	45,63,558	37,44,62	\$85 D3 08	584.07.00	68,35,745	6716,886,614
MUHANGA	91,681,771	118,634,906	65216,8	10,528,333	102,807,110	10, 90, 95	57,300,828	8,358,98	14,63,33	102 31 43	1079158	16,934,548	1,220,219,083
KAMOINI	14, 12, 10	148,210,985	148,290,287	19,99,602	148/08/081	148, 225, 433	M2,65,95	142,995,023	171,938,345	157, 201, 644	163,763,021	148,792,795	1,889,042,768
A/E	12,052,255	12,130,921	12,035,666	12,82,353	117,893,304	12,94444	17(36148	12,05,161	39,433,342	1374037	146785560	13,75,140	1,51,70,512
WANZA	36,579,962	9,523,900	90,429,274	38,979,160	3,02,03	62,082,997	55 27,75	51,803,116	77,28,40	69,706,600	612730	(B)(43),467	786,162,132
MARIGURU	3,698,521	30,769,250	1,886,471	<b>泰月夏,659</b>	2,6133	34,062,409	1895.15	30,993 120	38,038,490	37,894,089	37,782,766	1577,378	403,587,761
CEWARLIN	61,815/060	7,888,119	64,030,682	9,39,978	6,9091	651580	66601308	6.547.067	81851D	77,119,890	712891	77.08 228	813/091/354
GSAGARA	4,751,716	4,483,699	6,705.87	46,471,205	4,39,36	91,085,090	51/054,700	91,821, 300	65,25,03	5938977	52,284,64	6,35,479	68,071,576
NANAGEE	4,107,651	45845 BT	46,591,572	45(08),497	8,17,221	49,285,290	51.07.53	424496	59,578,451	57(81,25	58,907,754	3,874,758	6534913
RWAMAGANA	110,239,989	12,093,093	18,534,945	126,494,505	124321717	18.9033	1198730	12,243,64	M60875	149407789	142,772,952	134302815	1548320.765
KAYONZA	98,836,701	8,212,47	8,46,25	925282	9,9320	109,216,436	96,249,41D	101, 340,059	82,430,240	129615055	124790440	1008201	1,256,300,420
GATSIBO	3,384,322	4,572 171	47,134,723	4,895,946	4,41,88	30,072,307	51,356,488	1,098,395	69,442,630	62,773,723	62,727,486	97,008,227	946,A28,707
NGONA	64,715,404	7,354060	<b>副后36782</b>	\$335,294	5,8126	64,317,843	53,27,74	9,337,990	69,837,210	(月3752	70,003,291	37,705.820	BL15,156
ORDE	66,647,117	2,792,955	9,536,70	362,439	36,482,557	5,104,225	55,76,68	\$45447	73,725,00D	6668,722	693449	6,58,627	125.676,377
B.G.SER	170, 630,099	176,743,374	16,000,677	187,08,081	15453381	172,719,003	BR.BEF.M	19,97,89	926443	183,854,070	175,162,951	179,529,083	2075,304,604
MAGATARE	128, 252, 641	15,173,984	134,041,694	13,507,589	11629996	18,70,70	115(81.33)	12,48,27	MASSED	13795892	13261728	15,048,334	1,485,642,301
RULINCO	6,255,999	71,802(21)	6,497,95	71,786,232	71,972,053	3,700.26	70 38,434	@,476.ED	39,115,995	852097	92 199 864	\$135.069	99.68.016
GLIGENCE	38,976,385	3,486,203	3,640,40	\$14,228	5,9193	39,128,075	37(187,725	3,597,60	4833353	5003358	50,206,436	431.38	49,576,805
MISANE	20,37(99	197,013,076	19,014,019	18,78,436	206783.117	734,954,807	1012-9,02	182,481,022	24,162,22	220,237,441	241,57,94	234,765,842	29278610
BAUDE	2003089	8,287 30	(£.845.26	0.390.688	2,48,43	3491457	63/61979	\$1343B	87302162	76(\$2)(\$7)	82111241	1339.613	89.0E 194
B.RERA	3,599,170	0.081.477	39,269,281	60,562,844	57,770380	(0.089.975	39.8655	3,410 109	73,147,511	68/29/47	753794	6.65.721	76,05,750
WABRU	42,661,967	4,103,906	40,455,200	48,845,371	45,155,075	46,06(5)(5)4	42,833,543	4,721,43	49,490,510	489576	52068787	4,59,732	548,888,160
RUTSIRO	34,676,086	7.728 29	2,537,095	303828.	2,90,90	2.197.62	2662.054	34,705,064	27,702,671	2870957	2966337	28,127,747	34,195,260
RLEAD	130,222,659	12 382 34	122,612,937	12,17,198	13040126	132,396,228	20 1/2.698	134,325,223	6430.85	163,782,489	159 26 02	148,839,480	164599.133
MANASERE	49,329,235	3,798,540	9,227,969	45,533,634	4,2030	3,562,356	49(89,5)4	5,193,788	6616293	63,95,08	63 SQ B7	632547	652,776,238
CARONG .	75,459,338	71,211,950	6.13436	#37.641	田,五1,279	7.601.93	72 29,104	07569165	87,045,479	75379.50	75,2907	8,28,513	89.005.855
NGOROIERO	31,863,483	29.307.870	10313822	29,58,195	支援145	2552 B2	1148677	30,576,215	37694B	37(80,891	29 172 919	132234	394,730,341
RUBAYU	197, 369 399	22,861,90	201.627.0%	236,470,029	210542.091	227, 317, 280	21220548	20, 32, 25	29,211,01B	2149192	217,23625	20,78,727	2552,805,647
Total	5 394 133 311	5 519845 785	5 374 118 703	5,664,863,594	5538361 019	5 935 397 570	5415897.076	5 149 164 466	6140.753295	6020245 371	6 167 585 838	6115 963047	68 487 319 567

Table 37: Prepayment sales

# 11.8 Post payment Sales (Frw) per Branch

Branch	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
KACYIRU	747,386,752	723,813,086	726,569,817	723,973,585	745,962,608	772,677,940	683,834,758	723,279,933	673,507,455	789,047,478	790,587,914	852,877,708	8,953,519,033
REMERA	771,162,074	783,321,035	751,047,424	793,754,878	769,152,233	743,079,620	692,440,938	701,113,259	790,085,277	813,708,575	762,763,671	798,550,030	9,170,179,013
KICUKIRO	277,908,080	301,008,187	282,462,483	287,507,614	359,012,354	331,044,922	301,930,465	284,846,244	298,241,519	299,646,352	297,277,106	318,771,638	3,639,656,965
JABANA	688,514,222	647,571,010	705,314,772	773,108,814	785,807,061	769,967,956	744,533,563	735,120,611	702,758,470	704,564,878	706,377,256	789,670,464	8,753,309,077
KANOMBE	308,647,603	334,452,782	315,641,162	340,214,587	352,341,401	363,293,030	340,081,456	345,772,749	354,854,902	361,090,137	355,386,544	386,485,504	4,158,261,856
NYARUGENGE	654,239,357	704,632,998	709,519,929	751,024,813	747,815,187	770,580,169	730,170,358	668,279,223	675,244,348	758,748,071	770,176,397	853,663,912	8,794,094,762
MUHANGA	53,303,462	50,177,753	49,400,546	46,954,650	49,516,127	49,805,545	51,728,916	52,825,451	51,157,371	58,944,020	55,247,998	61,978,493	631,040,330
KAMONYI	45,256,281	53,192,546	48,645,801	67,149,051	47,614,632	49,254,870	61,642,119	76,735,969	81,534,487	74,859,414	77,264,550	76,051,740	759,201,460
HUYE	119,128,200	115,958,379	115,522,156	116,357,280	131,684,026	125,680,868	131,041,357	132,031,181	128,807,405	130,129,110	135,272,988	153,725,249	1,535,338,198
NYANZA	62,539,932	56,401,037	58,430,422	60,289,028	64,563,967	63,977,768	59,956,012	65,678,060	60,423,839	65,449,937	58,947,069	69,847,716	746,504,787
NYARUGURU	43,880,250	37,621,890	39,806,010	51,217,785	59,764,675	57,766,313	60,886,513	54,905,186	57,910,840	57,685,538	68,876,189	57,906,311	648,227,502
RUHANGO	38, 348, 808	40,161,740	38,631,949	38,561,121	39,861,494	40,400,118	40,795,254	37,837,179	34,869,367	36,102,238	35,331,261	37,428,592	458,329,120
GISAGARA	38,553,266	38,357,783	35,435,900	51,554,966	77,973,687	95,862,884	88,065,676	139,798,282	94,554,910	92,737,992	82,909,505	92,797,250	928,602,101
NYAMAGABE	52,109,443	47,787,762	52,435,206	55,930,662	60,968,467	64,031,782	65,011,082	62,877,039	63,617,473	64,682,424	67,577,733	65,949,881	722,978,954
RWAMAGANA	445,442,280	518,460,374	509,579,133	556,374,198	515,811,367	473,920,693	472,223,735	454,723,870	411,233,500	489,567,159	530,587,447	543,143,600	5,921,067,357
KAYONZA	90,086,515	86,352,626	81,711,436	86,920,271	93,384,010	88,126,318	88,355,807	84,126,059	83,717,206	92,642,869	101,618,540	91,790,608	1,068,832,264
GATSIBO	51,250,847	48,363,670	51,420,826	54,364,036	51,120,382	53,671,628	47,992,329	57,848,293	60,574,787	60,267,493	48,576,698	65,075,270	650,526,259
NGOMA	28,610,084	33,237,727	35,171,981	33,934,176	30,899,919	34,665,946	39,943,132	36,302,662	33,915,011	32,958,529	32,119,285	42,371,832	414,130,285
KIREHE	79,247,659	74,883,424	77,224,231	79,138,098	57,659,414	59,024,005	54,035,104	51,139,779	47,487,724	47,176,238	56,918,706	72,808,535	756,742,916
BUGESERA	372,000,989	380,714,497	375,427,240	335,516,856	313,896,418	360,821,995	383,905,424	355,203,971	549,404,301	465,426,529	436,803,641	535,053,534	4,864,175,395
NYAGATARE	125,070,902	132,514,045	104,586,500	101,004,157	96,232,688	105,494,161	100,259,450	91,388,292	106,642,595	110,181,429	103,426,044	118,914,218	1,295,714,482
RULINDO	77,712,821	73,761,800	77,499,001	87,066,974	92,901,297	91,736,384	91,117,033	87,038,841	95,313,796	101,549,185	98,302,820	94,892,674	1,068,892,626
GAKENKE	14,609,766	22,827,248	19,010,035	19,464,508	17,980,672	18,096,931	16,780,406	18,149,111	16,443,562	19,268,947	19,091,303	19,115,832	220,838,320
MUSANZE	123,866,503	152,224,463	192,931,973	232,261,690	217,059,109	217,308,463	278,530,882	234,001,237	217,552,513	247,540,486	205,293,278	282,343,742	2,600,914,339
GICUMBI	87,635,304	74,121,002	80,129,674	95,139,992	108,111,425	97,803,088	106,930,609	103,997,813	100,675,227	108,236,489	110,038,186	104,680,980	1,177,499,789
BURERA	35,722,808	38,380,729	40,132,032	37,105,305	35,527,159	33,436,507	32,383,716	36,673,584	37,653,299	37,572,743	39,474,450	38,300,209	442,362,540
NYABIHU	48,639,764	52,411,918	52,085,645	53,846,261	56,274,759	58,740,390	51,925,146	51,782,397	53,882,966	54,553,137	51,863,720	54,312,711	640,318,813
RUTSIRO	18,638,377	17,353,781	18,210,261	18,577,643	21,747,410	23,111,536	22,548,561	20,838,803	22,010,842	24,812,518	23,235,156	26,482,481	257,567,369
RUSIZI	814,692,553	678,435,257	701,308,068	654,269,253	820,307,148	773,777,926	715,986,028	637,547,902	724,478,512	737,318,673	501,218,423	740,324,555	8,499,664,299
NYAMASHEKE	90,567,921	75,829,009	72,363,899	91,727,121	96,238,642	102,689,492	100,272,652	86,360,214	96,768,025	99,256,632	110,775,146	103,356,281	1,126,205,034
KARONGI	65,092,977	57,663,752	56,091,183	73,476,987	81,474,052	78,301,283	74,927,143	76,921,209	73,840,674	74,893,371	74,784,659	74,327,223	861,794,512
NGORORERO	27,882,447	25,734,053	18,659,854	27,768,958	31,716,346	32,987,995	35,880,486	22,206,724	28,912,727	31,682,331	34,407,715	31,131,669	348,971,304
RUBAVU	327,763,302	189,653,167	188,775,060	175,413,371	198,029,420	211,011,883	193,866,942	182,073,201	182,135,773	198,093,467	208,707,449	200,925,277	2,456,448,311
S/Total	6,825,511,548	6,667,380,528	6,681,181,607	6,970,968,689	7,228,409,554	7,212,150,411	6,959,983,052	6,769,424,327	7,010,210,703	7,340,394,389	7,051,238,848	7,855,055,716	84,571,909,371
Uganda Export	27,774,417	29,235,248	27,831,546	32,505,009	34,937,434	34,239,104	33,213,782.02	29,884,043.83	34,724,123.00	36,182,074.52	40,537,122.71	39,196,689.61	400,260,594
Total	6,853,285,966	6,696,615,775	6,709,013,153	7,003,473,698	7,263,346,988	7,246,389,515	6,993,196,834	6,799,308,371	7,044,934,826	7,376,576,463	7,091,775,971	7,894,252,406	84,972,169,965

Table 38: Post payment sales per Branch

## 11.9 Energy consumed (kWh) by category of customers

	CATEGORY	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
	Prepaid	12,515,664.90	13,056,673.90	12,788,358.90	13,373,048.40	13,158,802.90	13,996,347.80	12,721,878.30	11,711,298.60	13,628,390.60	13,531,674.69	13,978,138.32	14,211,179.40	158,671,456.71
KIGALI	Postpaid	16,843,300.22	17,133,151.56	17,127,486.63	18,423,710.64	18,421,004.63	18,228,235.07	17,161,967.38	16,928,167.23	17,384,025.93	18,062,755.99	18,059,045.84	19,548,260.75	213,321,111.87
	S/Total	29,358,965.12	30,189,825.46	29,915,845.53	31,796,759.04	31,579,807.53	32,224,582.87	29,883,845.68	28,639,465.83	31,012,416.53	31,594,430.68	32,037,184.16	33,759,440.15	371,992,568.58
	Prepaid	10,044,939.40	10,050,348.90	9,743,845.90	10,286,475.90	10,012,903.20	10,659,021.60	10,120,899.50	9,964,576.50	11,776,668.50	11,445,190.36	11,641,899.76	11,215,690.10	126,962,459.62
Up Country	Postpaid	21,724,558.17	20,167,897.31	20,428,613.37	21,098,825.17	22,299,873.78	22,081,308.30	22,265,046.27	20,312,390.84	22,672,344.39	23,270,349.01	21,382,387.16	24,961,968.25	262,665,562.02
	S/Total	31,769,497.57	30,218,246.21	30,172,459.27	31,385,301.07	32,312,776.98	32,740,329.90	32,385,945.77	30,276,967.34	34,449,012.89	34,715,539.37	33,024,286.92	36,177,658.35	389,628,021.64
Export	UETCL	355,297.00	370,988.00	351,441.00	408,084.00	436,667.00	425,632.00	412,831.00	369,430.00	429,803.00	444,943.00	499,197.00	481,301.00	4,985,614.00
	Total	61,483,759.69	60,779,059.67	60,439,745.80	63,590,144.11	64,329,251.51	65,390,544.77	62,682,622.45	59,285,863.17	65,891,232.42	66,754,913.05	65,560,668.09	70,418,399.50	766,606,204.22

Table 39: kWh by category of customers

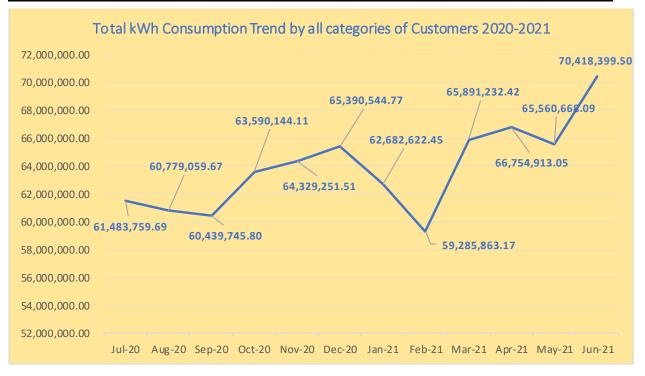


Figure 16 Total kWh Consumption Trend by all categories of Customers 2020-2021

#### 11.10 Statistics of customers queries

In the field of attending customers queries and requests from e Call through Call center, about 201,353 queries were recorded, 196,564 rectified & 4789 Pending.

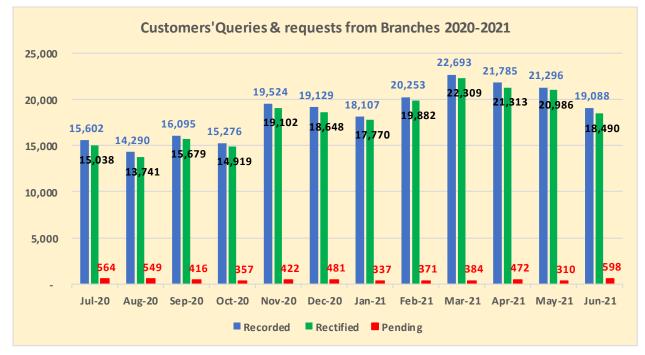


Figure 17 Customers 'Queries & requests from Branches 2020-2021

# 11.11 Revenue Protection Program (RPP).

The Revenue Protection Program (RPP) Funded by the World Bank has been implemented and 2000 smart meters have been installed at the premises of Postpaid Customers. An additional 1000 smart meters has been acquired from the World Bank to cover the remaining customers. Currently the automated Metering System (MDM) is now linked to the billing system (CMS) and results yielded will enable data from customers' meters to be pushed into Customer Management System.

# 11.12 Energy Efficiency and Revenue Protection

# 11.12.1Inspected meters

S/N	Branch	Inspected meters	Theft cases	Tampe red meters	Faulty meters	Unused meters	Stolen meters
1	BUGESERA	55	1	2	0	0	0
2	GATSIBO	645	0	0	1	0	0
3	GICUMBI	693	2	2	0	0	0
4	JABANA	421	1	1	3	0	0
5	KACYIRU	552	8	8	1	0	1
6	KAMONYI	56	0	0	3	0	0
7	KANOMBE	421	7	6	2	0	1
8	KARONGI	339	3	3	3	0	0
9	KAYONZA	925	1	1	1	0	0
10	KICUKIRO	198	10	10	6	0	2
11	MUHANGA	52	0	0	0	0	0
12	MUSANZE	2	2	2	0	0	0
13	NGORORERO	1	0	0	0	0	0
14	NYAMASHEKE	284	2	2	3	0	0
15	NYARUGENGE	1,942	11	9	3	3	2
16	REMERA	231	8	8	4	0	3
17	RULNDO	7	0	0	0	0	0
18	RUSIZI	374	3	3	1	0	0
19	RWAMAGANA	139	1	1	0	0	0
	TOTAL	7,337	60	58	31	3	9

Table 40: Inspected Meters

# 11.12.2Fines, regularization bills and identified energy loss

Months	Recovered	Regularization bills	Recovered	Identified Energy
	Fines /Frw	established /Frw	Regularization bills /Frw	loss (kWh)
Jul-20	7,500,000	4,246,994	4,615,127	18,659.00
Aug-20	1,615,004	1,770,756	3,938,968	8,119.27
Sep-20	7,000,000	291,145	117,806	1,948.02
Oct-20	11,783,333	743,502	10,260,532	8,102.53
Nov-20	13,000,000	5,336,133	1,290,219	27,163.30
Dec-20	4,550,000	11,066,838	5,001,561	43,077.56
Jan-21	5,600,000	7,345,875	109,595	32,586.99
Feb-21	3,000,000	4,687,550	1,398,757	23,345.87
Mar-21	15,600,000	2,928,894	4,150,564	13,374.72
Apr-21	5,600,000	4,036,293	6,777,586	16,250.17
May-21	3,125,000	1,740,907	1,081,757	7,503.64
Jun-21	10,200,000	4,662,426	6,963,024	17,974.57
TOTAL	88,573,337	48,857,313	45,705,496	218,105.64

Table 41: Fines, Regularization Bills and Identified Energy Loss

#### 11.12.3 Complaints handed to RIB

Months	Theft of electricity	Theft of meter	Theft of materials	Total
	complaints	complaints	complaints	complaints handed to RIB
Jul-20	7	0	0	7
Aug-20	3	1	0	4
Sep-20	5	1	1	7
Oct-20	7	0	1	9
Nov-20	4	0	0	4
Dec-20	8	1	0	9
Jan-21	3	1	1	5
Feb-21	1	0	0	1
Mar-21	8	0	0	8
Apr-21	6	1	0	7
May-21	3	0	0	3
Jun-21	2	0	0	2
TOTAL	57	5	3	66

Table 42 Complaints handed to RIB

## 11.12.4Customer education and public awareness

	Electricity and mater	ials Thefts	
Date	Activity	Communication	Location
		means	
13/Jul/2020	2 Electricity fraudulent cases were	Twitter	Nyarugenge Branch
	published		
30/Mar/2021	1 Electricity fraudulent case was	Twitter	Musanze Branch
	published		
2/Apr/2021	1 Electricity Fraudulent users	Twitter	Kicukiro Branch
	were published		
31/Mar/2021	1 Electricity Fraudulent users	Twitter	Nyarugenge branch
	were published		
18/Jan/2021	1 Electricity fraudulent cases	Twitter	Remera Branch
	were published		
20/May/2020	1 infrastructure destruction &	Twitter	Kicukiro & Remera
	material theft case was published		branches
	Efficient Use of I	Energy	
November,	Customer education on Energy	4 branches	Karongi, Kayonza,
December &	savingtips		Gatsibo & Gicumbi
June 2020			

# **12 HUMAN RESOURCE PERFORMANCE**

The mandate of Human Resources unit is to oversee Employment; Recruitment and Onboarding; Performance management; Promotion and Transfer; Remuneration and Benefits Management; Payroll Processing; Human Resource Development; Ethics & Staff Code of Conduct; Disciplinary Guidelines and Grievance Handling; Termination of Service; Occupational Health and Safety; Staff Welfare; leave; Travel; Equal Opportunity; Harassment and re-organization of work activities to ensure the high performance of the overall company.

EUCL Organizational Structure was provisionally established in August 2015, in order to attain best organizational fit for efficient operations, this structure was reviewed three times as follows: first review: June 2016, second Review: May 2017 and the latest Review: July 2020

The EUCL has 9 Departments including MD's office with a total number of 943 by the end of the Fiscal year (FY) 2020-2021 including Eleven (11) staff of HRU.

The EUCL HRU is built on the following key pillars and severely works as a strategic partner and advisor to departments on all areas of HR and as a result, the following key pillars worked on during the financial year 2020-2021:

- 1. Organization Development
- 2. Learning development
- 3. Performance management and Reward
- 4. Resource and Talent planning
- 5. Employee relation
- 6. Employee Engagement
- 7. Service Delivery
- 8. Organization Design

Generally, the above pillars were successfully managed since the turnover stands on 5.02% given that employees at the beginning, July 2020 were 971 and employees at the end, June 2021 were 941 and the overall performance of the company is on 87% at the end of the FY. Below tables talk more about the HRU activities performed:

# 12.1 Organization Development

During the FY 2020-21, HRU worked hand in hand with other departments and other relevant forums to conclude the EUCL organizational structure review to best fit organization mandate and include lessons learnt in similar utilities while enhancing efficient & effective operations. The unit also has started visiting staff in their sections or units such as some of the Generation, Transmission and Commercial departments to strive for change management, shaping the attitudes and values of employees for individual and company growth. The purpose is to enable EUCL to better respond and adapt to industry/market changes and technological advances.

S/N	Торіс	Number	Observation
1	Departments	9 (providing 1156 staff)	8 Department plus two units (Legal
		while the previous one has	Services and HR) under MD's office.
		1124 staff.	Note that the old structure was having 7
			departments plus 4 units under MD's

Below table shows related statistical data:

S/N	Торіс	Number	Observation		
			office (Projects Mgmt, strategic Planning & Regulatory, Procurement		
			and HR).		
Curr	ent number of s	taff			
2	Total staff	943	Female: 183 (19%) Male: 760 (81%) This is the closing number of staff by June 2021 (FY 2020-2021)		

# 12.2 Resource and Talent Planning

EUCL HRU did a lot in various aspects like analysis on forecast of required resources, networking and selection of proper hiring channel, delivery of resources on schedule, Maintain Talent pool for future recruitment. The following table shows identified gaps and filling done among other things:

No	Торіс	Staff	Observation		
1	Recruited Staff	22	New staff		
2	Promoted Staff	14	Promoted internally with merit without competition		
3	Offer Letters Withdrawal	1	On Transmission Department		
4	Replaced	4	In HR, Corporate Services		
5	Contract's expiry	9	Commercial, Corporate Services		
6	Suspensions	4	Commercial Operations, Corporate Services		
7	Retirement	5	Commercial Operations, Generation, Transmission		
8	Dismissals	8	Corporate Services, Commercial		
9	Demoted	1	HR Unit		
10	Resignations	26	Commercial, HR		

Table 43 Key Human Resources statistics

# 12.3 Occupational Health and Safety

EUCL cares about Health and safety in its workplace. There are various programs that are aimed at making the workplace better for its workers, along with co-workers, customers and other stakeholders such catering different health services. Below table summarizes the work done by EUCL HR in Occupational Health and Safety service:

No	Торіс	Number	Cost in FRW	Observation	
1	Social Provision	15	9,442,000	Funeral indemnities and medical	
				financial supports	
2	Sport Facilitation	Kigali staff	1,973,672	Due to restriction measure to	
				protect the spread of Covid 19,	
				Staff did not do sport activities at	
				the good level	

No	Торіс	Number	Cost in FRW	Observation	
3	Covid 19	Kigali staff &	32	Restriction measures were	
	Positive cases	Upcountry		prepared and shared to staff to	
				protect the spread of Covid 19, its	
				ongoing	
4	Vaccinated staff	EUCL Kigali	4,010,000	Ongoing activity	
		staff			
5	Work Accident	14	1,991,807	Medical coverage for injured	
				staff	
6	Death	1	1,500,000	One staff died and EUCL	
				provided funeral indemnities	
7	Hand Sanitizer	363L	8,000,000	EUCL staff were facilitated with	
				hand sanitizer as one of the	
				measures to stop COVID-19	
				spread/ transmission	

# 12.4 Employee Relation

In view of continuing to create and maintain EUCL's positive relationship with its employees, HR Unit has helped prevent and resolve problems/disputes between employees and management either within departments/units/ branches, plants, hubs and substations, etc. Below table shows cases forwarded to HRU and solved thru Disciplinary Committee:

No	Торіс	Number	Observation	Challenges	Recommendation
1	Disciplinary	13	9 staff dismissed	COVID-19	EUCL
	issues		due to Gross	positivity rates	Management
			Misconduct	increase prevented	should facilitate
			3 had been	fields visits to	the vaccination of
			temporally	mobilize/sensitize	all staff to pave
			suspended (Lay off)	employees about	way for resuming
			1 demoted due to	relevant policies	HR field visits to
			the	and their impact on	mobilize/sensitize
			underperformance	employment	about relevant
					policies and their
					impact to
					employment.

# 12.5 Learning development

EUCL HRU has a long-term process to keep individual skills and performance aligned with the company goals and requirements, in FY 2020-21, below table summarizes the achievements:

Energy Utility Corporation Limited Annual Report and Audited Financial Statements For the year ended 30 June 2021

N°	Торіс	Number	Observation	Challenge	Recommendation
1	Staff	71	Trained staff: Internal	COVID-19 pandemic	EUCL shall have
	Trained		training and external	spread.	all staff
			training both in the		vaccinated.
			country and outside of	Budget constraints due	EUCL HR shall
			the Country.	to COVI-19 pandemic	continue to
			-	_	monitor and
					remind the shared
					Restriction
					measures to stop
					spread of COVID-
					19 but shall also
					make advocacy to
					mobilize funds,
2	Study	3	Masters' degree in		
	Leave		technical engineering		
			(One in Mechnical,		
			another One in		
			Electrical and One in		
			Information		
			Technology)		

# 12.6 Customer Services

Human Resources Unit of EUCL feels responsible for making employees happy and productive. Important services have been delivered during 2020/21 to enhance employee satisfaction, motivation and the EUCL's ability to attract and retain their talent. These services include but not limit to below table summary:

No	Торіс	Number	Cost	Observation	
1	Different staff request	26	N/A	Service and salary certificate	
	initiated			Loan forms	
				Resignation responses	
2	Staff Transfers arranged	84	N/A	Staff request responded	
3	Service cards	71	603,500	The cost need to be	
				determined	
4	Rubavu and Nyabihu Staff	32	2,559,000	These staff were rescued with	
	rescued due to the	2		their families for the period of	
	Nyiragongo Volcanic			10 days	
	eruption and earthquake				
5	visits	3	-	Departments (some sections	
				of Transmission, Generation	
				and Commercial)	

# 12.7 Compensation Management

During the FY 2020-21, EUCL staff were compensated in exchange for their work. The chart and table below show the salaries, Lump Sum, bonus paid and electricity allowances provided.

#### Summary on a chart:

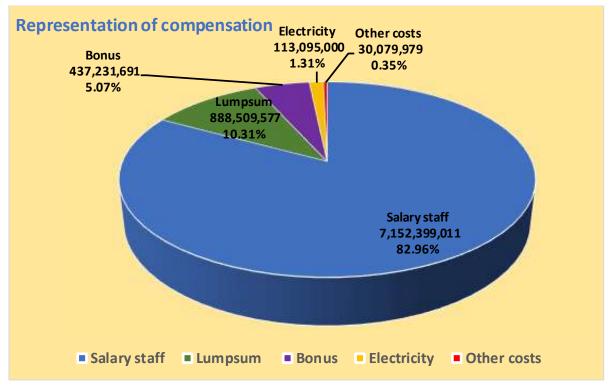


Figure 18 Representation of Human Resource compensation

No	Торіс	Cost in FRW	Observation
1	Salary staff	7,152,399,011.00	For the FY 2020-2021
2	Lumpsum	888,509,577.00	For the FY 2020-2021
3	Bonus	437,231,691.00	For the FY 2019-2020
4	Electricity	113,095,000.00	For the FY 2020-2021
5	Other costs	30,079,979	For the FY 2020-2021

Summary in a table:

# 12.8 Human resources Challenges

The HR Unit accounted some challenges regardless its performance as shown above and among others we can say:

- *COVID* 19 Pandemic was the main challenge. There are some activities that were supposed to take place but not happened like:
  - ✓ Effective Visit of employees in different district
  - ✓ Monitoring of Attendance of employees
- Recruitment was delayed due to the disruption of lockdown and different measures in place to curb the spread of COVID-19

# **13 FINANCIAL STATEMENTS**

# **Company Information**

Members of the Board of Directors (Bo	oard):
Dr. Didacienne Mukanyiligira	Chairperson (From 14/12/2020 to date)
Mr. Pacific Tuyishime	Vice Chairperson (From 14/12/2020 to date)
Mr. Jean Claude ILIBONEYE	Member (From 29/07/2014 to date)
Mr. Viateur Mugenzi	Member (From 14/12/2020 to date)
Ms. Carine Umutoni	Member (From 14/12/2020 to date)
Ms. Rita Clemence Mutabazi	Member (From 14/12/2020 to date)
Mr. Charles Kalinda	Member (From 14/12/2020 to date)
Ms. Rehema NAMUTEBI	Member (From 29/07/2014) and Ag. Chairperson (From 16/04/2020 to 14/12/2020)
Mr. Ron WEISS	Board Secretary (From 15/05/2017 to date)
Registered office:	
KN82 ST 3, Nyarugenge District	
P.O Box 5964	
Kigali, Rwanda	
Bankers:	
National Bank of Rwanda	Ecobank Rwanda Limited
P. O. Box 6219	P. O. Box 3268
Kigali	P. O. Box 3268 Kigali
	Kigali I and M Bank (Rwanda) Limited
Kigali	Kigali
Kigali Bank of Kigali	Kigali I and M Bank (Rwanda) Limited
Kigali Bank of Kigali P. O. Box 259	Kigali I and M Bank (Rwanda) Limited P. O. Box 354
Kigali <b>Bank of Kigali</b> P. O. Box 259 Kigali <b>Guaranty Trust Bank (Rwanda)</b>	Kigali I and M Bank (Rwanda) Limited P. O. Box 354 Kigali
Kigali <b>Bank of Kigali</b> P. O. Box 259 Kigali <b>Guaranty Trust Bank (Rwanda)</b> Limited	Kigali I and M Bank (Rwanda) Limited P. O. Box 354 Kigali Access Bank (Rwanda) Limited
Kigali Bank of Kigali P. O. Box 259 Kigali Guaranty Trust Bank (Rwanda) Limited P. O. Box 331	KigaliI and M Bank (Rwanda) LimitedP. O. Box 354KigaliAccess Bank (Rwanda) Limited3rd Floor, UTC Building
Kigali Bank of Kigali P. O. Box 259 Kigali Guaranty Trust Bank (Rwanda) Limited P. O. Box 331 Kigali	KigaliI and M Bank (Rwanda) LimitedP. O. Box 354KigaliAccess Bank (Rwanda) Limited3rd Floor, UTC BuildingKigali
KigaliBank of KigaliP. O. Box 259KigaliGuaranty Trust Bank (Rwanda)LimitedP. O. Box 331KigaliEquity Bank Rwanda Limited	KigaliI and M Bank (Rwanda) LimitedP. O. Box 354KigaliAccess Bank (Rwanda) Limited3rd Floor, UTC BuildingKigaliBanque Populaire du Rwanda Limited
Kigali Bank of Kigali P. O. Box 259 Kigali Guaranty Trust Bank (Rwanda) Limited P. O. Box 331 Kigali Equity Bank Rwanda Limited P. O. Box 494	KigaliI and M Bank (Rwanda) LimitedP. O. Box 354KigaliAccess Bank (Rwanda) Limited3rd Floor, UTC BuildingKigaliBanque Populaire du Rwanda LimitedP. O. Box 1348
Kigali Bank of Kigali P. O. Box 259 Kigali Guaranty Trust Bank (Rwanda) Limited P. O. Box 331 Kigali Equity Bank Rwanda Limited P. O. Box 494 Kigali Compagnie Générale de Banque	KigaliI and M Bank (Rwanda) LimitedP. O. Box 354KigaliAccess Bank (Rwanda) Limited3rd Floor, UTC BuildingKigaliBanque Populaire du Rwanda LimitedP. O. Box 1348

# **Directors' Report**

The Directors present their report together with the audited financial statements of the Energy Utility Corporation Limited (the "Company") for the year ended 30 June 2021 which show the state of the Company's affairs.

#### **Principal activities**

The core business of the Company is transmission, distribution and retail of electricity generated by Government owned power plants under concession arrangement to different players including the Company and also power purchased from independent power producers.

Results for the year	Rwf
Profit/Loss before income tax	781,601,762
Income tax credit/Expense	1,241,668,057
Profit/ Loss for year	2,023,269,819

# Dividends

The Board of Directors do not recommend payment of dividends in respect of the year ended 30 June 2021

#### Reserves

The reserves of the Company are set out on page 75 of these financial statements.

#### Directors

The directors who served during the year and to the date of this report are as shown on page 70.

### Statement of Directors' Responsibilities

"The Law n°17/2018 of 13/04/2018 relating to companies requires the directors to prepare financial statements for each financial year that give a true and fair view of the state of affairs of the company as at the end of the financial year and of its operating results for that year. It also requires the directors to ensure that the company keeps proper accounting records which disclose, with reasonable accuracy, the financial position of the company. They are also responsible for safeguarding the assets of the company.

The directors accept responsibility for the annual unaudited financial statements, which have been prepared using appropriate accounting policies supported by reasonable estimates, in conformity with International Financial Reporting standards and the requirements of the law n°17/2018 of 13/04/2018 relating to companies. The directors are of the opinion that the financial statements give a true and fair view of the state of the financial affairs of the company and of its operating results in accordance with International Financial Reporting Standards. The directors further accept responsibility for the maintenance of accounting records which may be relied upon in the preparation of financial statements as well as designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement.

Nothing has come to the attention of the directors to indicate that the company will not remain a going concern for at least the next twelve months from the date of this statement, financial statements continue to be prepared on the going concern basis. "

#### Endorsement of the audited financial statements

The audited financial statements on pages 73 to 106 were endorsed to be shared to shareholder by the board of directors on \_\_\_\_\_\_ and signed on its behalf by;

Digitally signed

Date: 2022.02.28

17:05:53 +02'00'

by Ron WEISS

(CEO)



Armand Zingiro Managing Director EUCL Date .....



Ron Weiss Chief Executive Officer REG Ltd Date .....

Dr. Didacienne Mukanyiligira Chairperson BoD Date ..01/03/2022...

For the year ended 30 June		2021	2020
	Notes	RWF	RWF
Revenue	6	127,948,878,814	113,281,837,720
Cost of sales	7	(96,470,048,808)	(96,772,342,745)
Gross profit		31,478,830,006	16,509,494,975
Grants and subsidies	8	25,581,651,870	26,504,739,402
Other income	9	10,726,608,558	8,709,623,474
Distribution costs	10	(14,661,210,644)	(13,505,107,680)
Administrative expenses	11	(20,621,775,811)	(22,417,515,306)
Operating profit before interest,		32,504,103,979	15,801,234,866
tax, depreciation, and			
amortization			
Depreciation and amortization	12	(21,697,595,529)	(21,452,285,792)
<b>Operating Profit/loss</b>		10,806,508,450	(5,651,050,926)
Interest income	13(a)	14,946,588	11,124,958
Finance costs	13(b)	(10,039,853,276)	(5,789,555,819)
Profit/Loss before income tax		781,601,762	(11,429,481,787)
Income tax credit/Expense	14	1,241,668,057	224,109,601
Profit/ Loss for year		2,023,269,819	(11,205,372,186)
Other comprehensive income (net			
of tax)			
Other comprehensive income		-	-
Total comprehensive loss for the		2,023,269,819	(11,205,372,186)
year			

# Statement of Comprehensive Income

The notes on pages 77 to 106 are an integral part of these financial statements.

Statement of Financial Position

As at 30 June		2021	2020
	Notes	RWF	RWF
ASSETS			
Non-current assets			
Plant and equipment	15	446,171,095,951	444,298,525,617
Concession intangible asset	16	58,533,877,102	55,962,949,016
Intangible assets	17	5,975,961,136	5,510,970,385
Amounts due from related parties	<b>26(a)</b>	7,751,194,291	8,254,207,711
		518,432,128,479	514,026,652,729
Current assets			
Concession intangible asset	16	-	-
Inventory	18	11,006,894,707	11,066,356,312
Trade and other receivables	19	19,309,819,310	18,769,884,667
Bank and cash balances	20	17,049,832,783	10,031,095,049
		47,366,546,799	39,867,336,028
TOTAL ASSETS		565,798,675,280	553,893,988,757
EQUITY AND LIABILITIES			
Equity			
Share capital	21	40,000,000,000	40,000,000,000
Revenue reserves		(28,132,818,962)	(30,417,244,316)
Re-organisation reserve	28	15,900,415,897	15,900,415,897
		27,767,596,935	25,483,171,581
Non-current liabilities			
Concession intangible obligation	<b>22(a)</b>	58,533,877,102	55,962,949,016
Deferred income tax liability	23	19,872,797,279	21,114,465,336
Grants	24	298,132,181,650	300,961,698,470
Borrowings: Non- current portion	25	109,151,583,328	84,271,625,668
Amounts due to related parties	26(b)i	1,922,021,191	4,444,870,975
Total non-current liabilities		487,612,460,550	466,755,609,464
Current liabilities			
Concession intangible obligation	<b>22(b)</b>	-	-
Amounts due to related parties	26(b)ii	3,934,124,461	3,814,785,246
Borrowings: Current portion	25	2,302,571,992	1,805,837,819
Trade and other payables	27	44,181,921,342	56,034,584,646
		50,418,617,793	61,655,207,711
TOTAL EQUITY AND		565,798,675,280	553,893,988,757
LIABILITIES			

The audited financial statements on pages 73 to 106 were endorsed to be shared to shareholder by the board of directors on \_\_\_\_\_\_\_\_ and signed on its behalf by;

Digitally signed by EUCL(MANAGIN G DIRECTOR) Armand Zingiro

Armand Zingiro Managing Director EUCL Date .....



Digitally signed by Ron WEISS (CEO) Date: 2022.02.28 17:06:45 +02'00'

Ron Weiss Chief Executive Officer REG Ltd Date .....



# Statement of Changes in Equity

	Share capital	Retained earnings	Reorganization reserves	Total
For year ended 30 June 2020	RWF	RWF	RWF	RWF
As at 1 July 2019	40,000,000,000	(18,655,456,039)	15,900,415,897	37,244,959,858
Adjustment	-	(556,416,091)	-	(556,416,091)
Profit/(Loss) for the year	-	(11,205,372,186)	-	(11,205,372,186)
At 30 June 2020	40,000,000,000	(30,417,244,316)	15,900,415,897	25,483,171,581
For year ended 30 June 2021				
As at 1 July 2020	40,000,000,000	(30,417,244,316)	15,900,415,897	25,483,171,581
Adjustment	-	261,155,535	-	261,155,535
Profit/(Loss) for the year	-	2,023,269,819	-	2,023,269,819
As at 30 June 2021	40,000,000,000	(28,132,818,962)	15,900,415,897	27,767,596,935

The notes on pages 77 to 106 are an integral part of these financial statements.

# Statement of Cash Flows

For the year ended 30 June	2021	2020
	RWF	RWF
Profit/Loss before income tax	781,601,762	(11,429,481,787)
Adjustments for:		
Depreciation	21,623,394,673	21,296,352,340
Prior period adjustment	261,155,535	(556,416,091)
Realised grants	(15,962,578,257)	(15,569,058,565)
Amortisation of intangible assets	186,429,440	337,436,799
Interest income	(14,946,588)	(11,124,958)
Cash flows before working capital	6,875,056,564	(5,932,292,263)
movements		
Changes in:		
- Inventory	59,461,605	1,209,138,638
- Trade and other receivables	(539,934,644)	(2,313,388,215)
- Trade and other payables	(11,852,663,304)	11,497,820,719
- Related parties	(1,900,497,149)	(4,293,339,723)
Cash generated from operations	(7,358,576,927)	167,939,157
Interest received	14,946,588	11,124,958
Net cash generated from/(used in)	(7,343,630,339)	179,064,115
operating activities		
Cash flows from investing activities		
Receipt of grants	13,133,061,437	25,638,376,627
Disposal proceeds	-	-
Purchase of software	(651,420,196)	(670,668,518)
Purchase of property and equipment	(23,495,965,007)	(50,636,324,560)
Net cash used in investing activities	(11,014,323,766)	(25,668,616,451)
Cash flows from financing activities		
Repayment of Bank of Kigali Gishoma Loan	21,176,281	(1,250,443,035)
Proceeds from borrowings from RESSP	27,161,353,379	24,831,106,086
project		
Repayment of Equity Bank Loan	(405,880,646)	(353,089,947)
Repayment of borrowings from Bank of Kigali	(1,113,457,608)	(958,813,345)
Proceeds from borrowings from Cogebank	(286,499,574)	4,801,661,267
Net cash from investing activities	25,376,691,832	27,070,421,026
Net cashflows	7,018,737,733	1,580,868,687
Cash and cash equivalents		
At beginning of year	10,031,095,049	8,450,226,363
At end of the year	17,049,832,783	10,031,095,049

The notes on pages 77 to 106 are an integral part of these financial statements.

#### Notes

### 1. General information

The Energy Utility Corporation Ltd (EUCL) is a private company domiciled in the Republic of Rwanda and wholly owned by Government. It was established in August 2014 as a subsidiary of Rwanda Energy Group (REG) that was formed after desolution of the Energy, Water and Sanitation Authority (EWSA) through Prime Minister's Order N°87/03 of 16/08/2014.

The core business of the Company is transmission, distribution and retail of electricity generated by Government owned power plants under concession arrangement to different participants including the Company and also power purchased from independent power producers.

The address of the Company's registered office is as follows: Energy Utility Corporation Ltd (EUCL) KN82 ST 3, Nyarugenge District, Kigali City, P.O.Box. 537 Kigali, Rwanda."

# 2. Going Concern

The Company's directors have made an assessment of the Company's ability to continue as a going concern and are satisfied that the Company has the resources to continue in business for the foreseeable future. Furthermore, the Directors are not aware of any other material uncertainties that may cast significant doubt upon the Company's ability to continue as a going concern. Therefore, the financial statements continue to be prepared on the going concern basis.

3. Summary of significant accounting policies

#### a) Basis of accounting and statement of compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS). The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires the directors to exercise judgement in the process of applying the Company's accounting policies. The areas involving a higher degree of judgement or complexity, or where assumptions and estimates are significant to the financial statements, are disclosed in Note 4.

For the Rwandan Companies Act reporting purposes, the balance sheet is represented by the statement of financial position and the profit and loss account is presented by the Statement of Comprehensive Income in these financial statements."

b) Summary of significant accounting policies

#### i) Functional and presentation currency

Items included in the financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Rwanda Francs (Rwf) which is the Company's functional currency. ii) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuations where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from

the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in Statement of Comprehensive Income.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in Statement of Comprehensive Income within 'finance income or cost'. All other foreign exchange gains and losses are presented in Statement of Comprehensive Income within other income or expenses.

# c) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable, and represents amounts receivable for services or goods supplied, stated net of value-added tax (VAT), returns, rebates and discounts.

The Company recognizes revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the Company and when specific criteria have been met for each of the Company's activities as described below. The Company bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement."

# Revenue is recognized as follows:

# Sales of electricity - external

Electricity sales revenue is recognized when customers on post-paid metering are billed for the power consumed. The billing is done for each monthly billing cycle based on the units consumed as read on the customers' electricity meters and the approved consumer tariffs. Electricity sales revenue for customers on prepaid metering is recognized when customers purchase electricity units. Electricity sales revenue is recognized in the financial statements net of Value Added Tax ("VAT").

Sale of electricity - internal refers to revenue from consumption by Company offices and installations. These revenues are billed and recognized on the same basis described above. Revenue from works

Customers are required to fully or part-fund the cost of new installations to their facilities. This amount is paid in advance to the Company as a non-refundable capital contribution. The non-refundable capital contribution is treated as an advance payment until utilized for the construction of the installation paid for.

#### Dark fibre revenue

This represents income from rental of Company fibre optic cable lines to third parties. The revenue from renting the lines is recognized monthly for the period the contract is effective.

#### Connections and other non-energy sales

Other revenues include reconnection fees, meter replacement fees, fines, penalties, tender fees and other sundry incomes. They are recognized as they are earned at the rates prescribed by applicable rates or at the amounts agreed with the customers.

Interest income

Finance revenue comprises interest receivable from bank deposits and other deposits. Finance revenue is recognized as it accrues in Statement of Comprehensive Income, using the effective interest method.

Subsidies

Subsidies are recognized at the actual amounts received from Government. These amounts are deposited directly to the company's accounts in order to compensate the cash shortfall arising from a capped regulated tariff.

#### **Realized** grants

Grants are recognized in statement of comprehensive income on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. Grants used to purchase, construct, or otherwise acquire non-current assets are recognized in the statement of financial position and transferred to statement of comprehensive income on a systematic and rational basis over the useful lives of the related assets.

#### d) Plant and equipment

Property, plant, and equipment are stated at cost or valuation, excluding the costs of day-today servicing, less accumulated depreciation, and accumulated impairment in value. The initial cost of an asset comprises its purchase price or construction cost, any costs directly attributable to bringing the asset into operation, the initial estimate of the decommissioning obligation and for qualifying assets, borrowing costs.

The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset. Residual value, useful life and depreciation methods are reviewed at least annually at the reporting date. Changes in the residual value and expected useful life are accounted for by changing the depreciation charge for the year and treated as changes in accounting estimates. Freehold land is not depreciated.

An item of property, plant and equipment is derecognized upon disposal, write- offs or when no future economic benefits are expected from its use or disposal. 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 income statement in the year the asset is derecognized.

Increases in the carrying amount arising on revaluation of land and buildings are credited to other comprehensive income and shown as revaluation reserve in equity. Decreases that offset previous increases of the same asset are charged in other comprehensive income and debited against the revaluation reserve, all other decreases are charged to Statement of Comprehensive Income. Each year the difference between depreciation based on the revalued carrying amount of the asset (the depreciation charged to Statement of Comprehensive Income) and depreciation based on the asset's original cost is transferred from the revaluation reserve to retained earnings.

#### Capital work in progress

Capital work-in-progress is included under property and equipment and comprises costs incurred on ongoing capital works relating to both customer and internal works. These costs include material, transport and labor cost incurred."

#### Land is not depreciated.

Depreciation on other assets is calculated using the reducing balance method to allocate their cost or revalued amounts to their residual values over their estimated useful lives using the annual depreciation rates as follows:

Buildings - 5% Generation assets - 5% Transmission assets - 5% Distribution assets - 5% Motor vehicles - 25% Computer equipment - 33.3% Furniture and fittings - 12.5%

#### e) Service concession agreement

The concession arrangement is governed by the provisions in the Prime Ministers Order N°87/03 of 16/08/2014 Determining Modalities of Transfer of Responsibilities and Property of Energy, Water and Sanitation Authority (EWSA) ("PMO").

Article 5 of the PMO stated that power plants shall remain property of the Government but shall be managed by the companies through concession agreements with the Government. Under this article, Government concessioned eight (8) power plants to EUCL.

The significant terms of the agreement are the following:

• The concession agreement for the eight plants is for twenty (20 years) years.

• As a transitional arrangement for the first 5 years from 18/08/2014 (effective date), the annual concession fee will be restricted to zero (0) Frw to allow for progressive reduction in the weighted cost of generation (weighted average cost of the energy mix);

• After the grace period, monthly payments to Government will be effected by as guided by "Schedule B – Amortization Schedule" over the useful-life of each generation plant concessioned.

The key obligations of EUCL in this arrangement are:

• Refurbish, operate the plants in accordance with this agreement, prudent utility practices, relevant permits, and all laws/regulations.

• adhere to and observe at all times standards and practices concerning the protection of health, safety and the environmental regulations which are then in force and are legally binding in Rwanda.

• Employ staff or engage contractors of high repute and competence to guarantee the smooth operation and maintenance of these plants.

EUCL's rights under this concession agreement are summarized as follows:

• the right to operate, maintain and develop the Plants.

• the right to generate power from the Plants; and

• the right to control and sell power generated by the Plants pursuant to the provisions in this Agreement and other relevant laws and regulations governing the electricity supply industry.

# Renewal of the concession agreement

Either party may elect to have the concession renewed for another term whose length, terms and conditions thereof are agreed to by the other party. Once such renewal arrangements have been triggered, the existing terms and conditions remain in force beyond the expiring term albeit on transitional basis until the renewal or lack of it have been fully determined and the rights and obligations have been transferred to an appropriate party.

Expiration without prejudice

The expiration or earlier termination of this Agreement shall be without prejudice to all rights and obligations of the Parties accrued under this Agreement prior to such expiration or earlier termination but otherwise the Parties shall have no further obligations hereunder following such expiration or earlier termination except for obligations which are expressed to survive such expiration or earlier termination pursuant to this Agreement.

EUCL's cashflows are not specified in this contract and vary according to the usage of the concessioned assets.

In accordance with IFRIC 12, Service Concession Arrangements, the concession asset was classified as an intangible concession asset and the obligation as an intangible concession obligation.

# f) Intangible assets

This relates to acquired computer software licenses.

They are initially capitalized at cost, which includes the purchase price (net of any discounts and rebates) and other directly attributable cost of preparing the asset for its intended use. Direct expenditure including employee costs, which enhances or extends the performance of computer software beyond its specifications, and which can be reliably measured, is added to the original cost of the software. Costs associated with maintaining the computer software are recognized as an expense when incurred.

Computer software licenses are subsequently carried at cost less accumulated amortization and accumulated impairment losses. These costs are amortized to Statement of Comprehensive Income using the straight-line method over their estimated useful lives of 10 years.

The amortization period and amortization method of intangible assets other than goodwill are reviewed at least at each balance sheet date. The effects of any revision are recognized in Statement of Comprehensive Income when the changes arise."

Computer software is derecognized on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from unforeseeable changes of such software are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in statement of comprehensive income when the asset is derecognized.

# g) Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to Statement of Comprehensive Income on a straight-line basis over the period of the lease.

#### h) Inventories

As per IAS 2, Inventories are valued at the lower of cost and net realizable value. However, EUCL inventory is valued at cost due to the fact EUCL inventory is kept for the purpose of maintenance of electricity assets rather than sale, furthermore having net realizable value would involve hiring an independent valuer every quarter to determine the estimated selling price in the ordinary course of business after allowing for the cost of realization which can also involve a lot of funds to execute the exercise to comply with the standard. Therefore, in respect of value for money EUCL inventory is valued and recorded on cost. Cost of inventories comprises purchase price, import duties, transport and handling charges and is determined on weighted average basis.

# *i)* Trade receivables

Trade receivables are amounts due from customers for services rendered or merchandise sold in the ordinary course of business. If collection is expected in one year or less (or in the normal operating cycle of the business if longer), they are a classified as current asset. If not, they are presented as non-current assets.

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method less provision for impairment."

# *j)* Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities.

# k) Share capital

Ordinary shares are classified as 'share capital' in equity. Any premium received over and above the par value of the shares is classified as 'share premium' in equity. Incremental costs directly attributable to the issue of new ordinary shares are shown in equity as deduction from the proceeds.

# l) Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortized cost; any differences between proceeds (net of transaction costs) and the redemption value is recognized in Statement of Comprehensive Income over the period of the borrowings, using the effective interest method.

Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

Borrowings are classified as non-current liabilities unless the Company has to make settlement of the liability for at least 12 months after the end of the reporting period.

#### m) Income tax

# i) Current income tax

The tax expense for the period comprises current and deferred income tax. Tax is recognized in Statement of Comprehensive Income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity respectively.

The current income tax charge is calculated on the basis of the tax enacted or substantively enacted at the reporting date. The directors periodically evaluate positions taken in tax returns

with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

#### ii) Deferred income tax

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable Statement of Comprehensive Income.

Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted at the reporting date and are expected to apply when the related deferred income tax asset is realized, or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized.

The Company reviews the carrying amounts of its tangible and intangible assets, to determine whether there is any indication that those assets have suffered an impairment loss at reporting date, or when there are indications of impairment. If any such indication exists, the recoverable amount of the asset is estimated, and an impairment loss is recognized in Statement of Comprehensive Income whenever the carrying amount of the asset exceeds its recoverable amount. An asset's recoverable amount is the higher of the assets or cash-generating unit's (CGU's) fair value less costs to sell and its value in use. 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, an appropriate valuation model is used. Where it is not possible to estimate the recoverable amount of an individual asset, the directors estimate the recoverable amount of an individual asset belongs.

#### n) Retirement benefits obligations

The employees and the Company contribute to the Rwanda Social Security Board, a national defined contributions retirement benefits scheme. Contributions are determined by the country's statutes and the Company's contributions are charged to the income statement.

#### o) Government and other grants

Government and other grants are recognized where there is a reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate.

Where the grant relates to an asset the fair value is credited to a deferred income account and is released to the income statement over the expected useful life of the relevant asset by equal annual instalments.

# *p)* Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities. Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

# q) Provisions

Provisions are recognized when: the Company has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Restructuring provisions comprise lease termination penalties and employee termination payments. Provisions are not recognized for future operating losses.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognized as interest expense."

# r) Impairment of Assets

The Company reviews the carrying amounts of its tangible and intangible assets, to determine whether there is any indication that those assets have suffered an impairment loss at reporting date, or when there are indications of impairment. If any such indication exists, the recoverable amount of the asset is estimated, and an impairment loss is recognized in Statement of Comprehensive Income whenever the carrying amount of the asset exceeds its recoverable amount.

An asset's recoverable amount is the higher of the assets or cash-generating unit's (CGU's) fair value less costs to sell and its value in use. 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, an appropriate valuation model is used. Where it is not possible to estimate the recoverable amount of an individual asset, the directors estimate the recoverable amount of the cash-generating unit to which the asset belongs.

s) Application of new and revised International Financial Reporting Standards (IFRS)

Application of new and revised International Financial Reporting Standards (IFRS)		
i) Relevant new standards and amendments to published standards effective to the year ended		
30 June 2017		
The following new and revised IFRSs were effective in the current year and had no material impact on the amounts reported in these financial statements.		

Application of	new and revised International Financial Reporting Standards (IFRS)
Amendments to IAS 32 Offsetting Financial Assets and Financial Liabilities	The amendments to IAS 32 clarify the requirements relating to the offset of financial assets and financial liabilities. Specifically, the amendments clarify the meaning of 'currently has a legally enforceable right of set-off' and 'simultaneous realization and settlement'. As the Company does not have any financial assets and financial liabilities that qualify for offset, the application of the amendments has had no impact on the disclosures or on the amounts recognized in the Company's financial statements.
IFRIC 21 Levies	IFRIC 21 addresses the issue as to when to recognize a liability to pay a levy imposed by a government. The Interpretation defines a levy and specifies that the obligating event that gives rise to the liability is the activity that triggers the payment of the levy, as identified by legislation. The Interpretation provides guidance on how different levy arrangements should be accounted for, in particular, it clarifies that neither economic compulsion nor the going concern basis of financial statements preparation implies that an entity has a present obligation to pay a levy that will be triggered by operating in a future period. The application of this Interpretation has had no material impact on the disclosures or on the amounts recognized in the Company's financial statements.
Amendments to IAS 36 Recoverable Amount Disclosures for Non- Financial Assets	The amendments to IAS 36 remove the requirement to disclose the recoverable amount of a cash-generating unit (CGU) to which goodwill or other intangible assets with indefinite useful lives had been allocated when there has been no impairment or reversal of impairment of the related CGU. Furthermore, the amendments introduce additional disclosure requirements applicable to when the recoverable amount of an asset or a CGU is measured at fair value less costs of disposal. These new disclosures include the fair value hierarchy, key assumptions and valuation techniques used which are in line with the disclosure required by IFRS 13 Fair Value Measurements. As the Company does not have any cash generating units (CGU) to which goodwill or other intangible assets with indefinite useful lives had been allocated, the application of the amendments has had no impact on the disclosures or on the amounts recognized in the Company's financial statements.

Application of	new and revised International Financial Reporting Standards (IFRS)			
Amendments	The amendments to IAS 36 remove the requirement to disclose the			
to IAS 36	recoverable amount of a cash-generating unit (CGU) to which goodwill or			
Recoverable	other intangible assets with indefinite useful lives had been allocated when			
Amount	there has been no impairment or reversal of impairment of the related CGU.			
Disclosures	Furthermore, the amendments introduce additional disclosure requirements			
for Non-	applicable to when the recoverable amount of an asset or a CGU is measured			
Financial	at fair value less costs of disposal. These new disclosures include the fair			
Assets	value hierarchy, key assumptions and valuation techniques used which are			
	in line with the disclosure required by IFRS 13 Fair			
	Value Measurements. As the Company does not have any cash generating units (CGU) to which goodwill or other intangible assets with indefinite useful lives had been allocated, the application of the amendments has had no impact on the disclosures or on the amounts recognized in the Company's financial statements.			

ii) New and amended standards and interpretations in issue but not yet effective in the year ended 31 December 2016.

Amendments to standards	Effective for annual periods beginning
IFRS 15 Revenue from contracts with customers	January-17
IFRS 9	January-19
IFRS 16 Leases	January-19
	and Interpretations were adopted at their effective date (except for those Interpretations that are not applicable to the entity). Sale or Contribution of

r) Application of new and revised International Financial Reporting Standards (IFRS)

#### IFRS 16: Leases

On 13 January 2016 the IASB issued IFRS 16 Leases, completing the IASB's project to improve the financial reporting of leases. IFRS 16 replaces the previous leases standard, IAS 17 Leases, and related interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation, and disclosure of leases for both parties to a contract, i.e., the customer ('lessee') and the supplier ('lessor').

The standard defines a lease as a contract that conveys to the customer ('lessee') the right to use an asset for a period in exchange for consideration. A company assesses whether a contract contains a lease on the basis of whether the customer has the right to control the use of an identified asset for a period of time.

The standard eliminates the classification of leases as either operating leases or finance leases for a lessee and introduces a single lessee accounting model. All leases are treated in a similar

way to finance leases. Applying that model significantly affects the accounting and presentation of leases and consequently, the lessee is required to recognize.

(a) assets and liabilities for all leases with a term of more than 12 months unless the underlying asset is of low value. A company recognizes the present value of the unavoidable lease payments and shows them either as lease assets (right-of-use assets) or together with property, plant and equipment. If lease payments are made over time, a company also recognizes a financial liability representing its obligation to make future lease payments.

(b) depreciation of lease assets and interest on lease liabilities in Statement of Comprehensive Income over the lease term; and

(c) separate the total amount of cash paid into a principal portion (presented within financing activities) and interest (typically presented within either operating or financing activities) in the statement of cash flows.

IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently. However, compared to IAS 17, IFRS 16 requires a lessor to disclose additional information about how it manages the risks related to its residual interest in assets subject to leases.

The standard does not require a company to recognize assets and liabilities for:

(a) short-term leases (i.e., leases of 12 months or less) and

(b) leases of low-value assets.

The new Standard were effective for annual periods that began on or after 1 January 2019. Early application was permitted in so far as the issued revenue Standard (IFRS 15 Revenue from Contracts with Customers was also applied).

The company is assessing the potential impact on its financial statements resulting from the application of IFRS 16.

Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28)

The amendments require the full gain to be recognized when assets transferred between an investor and its associate or joint venture meet the definition of a 'business' under IFRS 3 Business Combinations. Where the assets transferred do not meet the definition of a business, a partial gain to the extent of unrelated investors' interests in the associate or joint venture is recognized.

The definition of a business is key to determining the extent of the gain to be recognized. The amendments were effective from annual periods that commenced on or after 1 January 2016.

Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11) The amendments require business combination accounting to be applied to acquisitions of interests in a joint operation that constitutes a business. Business combination accounting also applies to the acquisition of additional interests in a joint operation while the joint operator retains joint control. The additional interest acquired will be measured at fair value. The previously held interest in the joint operation will not be remeasured. The amendments applied prospectively for annual periods that commenced on or after 1 January 2016 and early adoption was permitted.

Amendments to IAS 41- Bearer Plants (Amendments to IAS 16 and IAS 41)

The amendments to IAS 16 Property, Plant and Equipment and IAS 41 Agriculture require a bearer plant (which is a living plant used solely to grow produce over several periods) to be accounted for as property, plant and equipment in accordance with IAS 16 Property, Plant and Equipment instead of IAS 41 Agriculture. The produce growing on bearer plants will remain within the scope of IAS 41. The new requirements were effective from 1 January 2016, with earlier adoption permitted.

No impact from amendments to IAS 41 - The Company does not have any bearer plants.

Equity Method in Separate Financial Statements (Amendments to IAS 27) The amendments allow the use of the equity method in separate financial statements and apply to the accounting not only for associates and joint ventures but also for subsidiaries. The amendments apply retrospectively for annual periods beginning on or after 1 January 2016 with early adoption permitted.

#### IFRS 14 Regulatory Deferral Accounts

IFRS 14 provides guidance on accounting for regulatory deferral account balances by firsttime adopters of IFRS. To apply this standard, the entity has to be rate-regulated i.e., the establishment of prices that can be charged to its customers for goods and services is subject to oversight and/or approval by an authorized body.

The standard was effective for financial reporting years beginning on or after 1 January 2016 with early adoption is permitted.

No impact is expected from this amendment.

#### Disclosure Initiative (Amendments to IAS 1)

The amendments provide additional guidance on the application of materiality and aggregation when preparing financial statements. The amendments applied for annual periods beginning on or after 1 January 2016 and early application was permitted. The company assessed the potential impact on its financial statements resulting from the application of the amendment.

Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11) The amendments require business combination accounting to be applied to acquisitions of interests in a joint operation that constitutes a business. Business combination accounting also applies to the acquisition of additional interests in a joint operation while the joint operator retains joint control. The additional interest acquired will be measured at fair value. The previously held interest in the joint operation will not be remeasured. The amendments applied prospectively for annual periods beginning on or after 1 January 2016 and early adoption was permitted.

The company assessed the potential impact on its financial statements resulting from the application of amendments to IFRS 11.

Investment Entities: Applying the Consolidation Exception (Amendments to IFRS 10, IFRS 12 and IAS 28)

The amendment to IFRS 10 Consolidated Financial Statements clarifies which subsidiaries of an investment entity are consolidated instead of being measured at fair value through Statement of Comprehensive Income. The amendment also modifies the condition in the general

consolidation exemption that requires an entity's parent or ultimate parent to prepare consolidated financial statements. The amendment clarifies that this condition is also met where the ultimate parent or any intermediary parent of a parent entity measures subsidiaries at fair value through Statement of Comprehensive Income in accordance with IFRS 10 and not only where the ultimate parent or intermediate parent consolidates its subsidiaries.

The amendment to IFRS 12 Disclosure of Interests in Other Entities requires an entity that prepares financial statements in which all its subsidiaries are measured at fair value through Statement of Comprehensive Income in accordance with IFRS 10 to make disclosures required by IFRS 12 relating to investment entities.

The amendment to IAS 28 Investments in Associates and Joint Ventures modifies the conditions where an entity need not apply the equity method to its investments in associates or joint ventures to align these to the amended IFRS 10 conditions for not presenting consolidated financial statements. The amendments introduce relief when applying the equity method which permits a non-investment entity investor in an associate or joint venture that is an investment entity to retain the fair value through Statement of Comprehensive Income measurement applied by the associate or joint venture to its subsidiaries. The amendments applied retrospectively for annual periods beginning on or after 1 January 2016, with early application permitted.

No impact is expected from this amendment as the Company is not an investing entity."

The amendments to IAS 19 clarifies that the high-quality corporate bonds used in estimating the discount rate for post-employment benefits should be denominated in the same currency as the benefits to be paid (thus, the depth of the market for high quality corporate bonds should be assessed at currency level).

The amendment to IAS 34 clarifies the meaning of 'elsewhere in the interim report' and requires a cross-reference.

#### IFRS 9 Financial Instruments

IFRS 9, issued in November 2009, introduced new requirements for the classification and measurement of financial assets. IFRS 9 was amended in October 2010 to include requirements for the classification and measurement of financial liabilities and for derecognition.

# Key requirements of IFRS 9:

All recognized financial assets that are within the scope of IAS 39 Financial Instruments: Recognition and Measurement are required to be subsequently measured at amortized cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortized cost at the end of subsequent accounting periods.

All other debt investments and equity investments are measured at their fair value at the end of subsequent accounting periods. In addition, under IFRS 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading) in other comprehensive income, with only dividend income generally recognized in Statement of Comprehensive Income.

With regard to the measurement of financial liabilities designated as at fair value through Statement of Comprehensive Income, IFRS 9 requires that the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is presented in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in Statement of Comprehensive Income.

Changes in fair value attributable to a financial liability's credit risk are not subsequently reclassified to Statement of Comprehensive Income. Under IAS 39, the entire amount of the change in the fair value of the financial liability designated as fair value through Statement of Comprehensive Income is presented in Statement of Comprehensive Income.

The directors of the Company do not anticipate that the application of IFRS 9 in the future may have a significant impact on amounts reported in respect of the Company's financial assets and financial liabilities. However, it is not practical to provide a reasonable estimate of the effect of IFRS 9 until a detailed review has been completed.

IFRS 15 Revenue from Contracts with Customers

In May 2014, IFRS 15 was issued which established a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. IFRS 15 will supersede the current revenue recognition guidance including IAS 18 Revenue, IAS 11 Construction Contracts, and the related Interpretations when it becomes effective.

The core principle of IFRS 15 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the Standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation"

Under IFRS 15, an entity recognizes revenue when (or as) a performance obligation is satisfied, i.e., when 'control' of the goods or services underlying the particular performance obligation is transferred to the customer. Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by IFRS 15. However, it is not practicable to provide a reasonable estimate of the effect of IFRS 15 until a detailed review has been completed.

Amendments to IAS 16 and IAS 38 Clarification of Acceptable Methods of Depreciation and Amortization

The amendments to IAS 16 prohibit entities from using a revenue-based depreciation method for items of property, plant, and equipment. The amendments to IAS 38 introduce a rebuttable presumption that revenue is not an appropriate basis for amortization of an intangible asset. This presumption can only be rebutted in the following two limited circumstances:

a) when the intangible asset is expressed as a measure of revenue; or

b) when it can be demonstrated that revenue and consumption of the economic benefits of the intangible asset are highly correlated.

The amendments apply prospectively for annual periods beginning on or after 1 January 2016. Currently, the Company uses the reducing balance method for depreciation and amortization for its property and equipment, and intangible assets respectively. The directors of the Company do not anticipate that the application of the standard will have a significant impact on the Company's financial statements.

Annual Improvements 2011-2013 Cycle

The Annual Improvements to IFRSs 2011-2013 Cycle include a number of amendments to various IFRSs, which are summarized below:

The amendments to IFRS 3 clarify that the standard does not apply to the accounting for the formation of all types of joint arrangement in the financial statements of the joint arrangement itself.

The amendments to IFRS 13 clarify that the scope of the portfolio exception for measuring the fair value of a group of financial assets and financial liabilities on a net basis includes all contracts that are within the scope of, and accounted for in accordance with, IAS 39 or IFRS 9, even if those contracts do not meet the definitions of financial assets or financial liabilities within IAS 32.

The amendments to IAS 40 clarify that IAS 40 and IFRS 3 are not mutually exclusive, and application of both standards may be required. Consequently, an entity acquiring investment property must determine whether:

a) the property meets the definition of investment property in terms of IAS 40; and b) the transaction meets the definition of a business combination under IFRS 3.

The directors of the Company do not anticipate that the application of these amendments will have a significant impact on the Company's financial statements.

Annual Improvements 2012-2014 Cycle

The amendments to IFRS 5 adds specific guidance in IFRS 5 for cases in which an entity reclassifies an asset from held for sale to held for distribution or vice versa and cases in which held-for-distribution accounting is discontinued.

The amendments to IFRS 7 adds additional guidance to clarify whether a servicing contract is continuing involvement in a transferred asset for the purpose of determining the disclosures required. Clarifies the applicability of the amendments to IFRS 7 on offsetting disclosures to condensed interim financial statements.

The amendments to IAS 19 clarifies that the high-quality corporate bonds used in estimating the discount rate for post-employment benefits should be denominated in the same currency as the benefits to be paid (thus, the depth of the market for high quality corporate bonds should be assessed at currency level).

The amendment to IAS 34 clarifies the meaning of 'elsewhere in the interim report' and requires a cross-reference.

# 4. Critical accounting estimates and judgements

In the application of the Company's accounting policies, which are described in note 3 above, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised if the revision affects only that period or in the periods of the revision and future periods if the revision affects both current and future periods.

In the process of applying the Company's accounting policies, management has made the following judgments, apart from those involving estimations, which have the most significant effect on the amounts recognized in the financial statements:

# Deferred tax asset and liability

A deferred tax asset is recognized for all unused tax losses to the extent that it is probable that taxable profits will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits together with future tax planning strategies. A deferred tax liability is recognized on timing differences between the carrying amount of assets and the tax written down values. The deferred tax asset is netted off with the deferred tax liability.

#### Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year as are follows:

#### Property and equipment

Property and equipment are depreciated over its useful life taking into account residual values, where appropriate. The actual lives of the assets and residual values are assessed at the reporting date and may vary depending on a number of factors. In reassessing asset lives, factors such as technological innovation, product life cycles and maintenance programmes are taken into account. Residual value assessments consider issues such as future market conditions, the remaining life of the asset and projected disposal values.

#### Impairment of assets

Property and equipment are assessed for impairment if there is a reason to believe that impairment may be necessary. Factors taken into consideration in reaching such a decision include the economic viability of the asset itself and where it is a component of a larger economic unit, the viability of that unit itself.

Future cash flows expected to be generated by the assets are projected, taking into account market conditions and the expected useful lives of the assets. The present value of these cash flows, determined using an appropriate discount rate, is compared to the current net asset value and, if lower, the assets are impaired to the present value.

# 5. Financial risk management objectives and policies

The Company's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Company's overall risk management Programme focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on its financial performance. The Company does not hedge any of its risk exposures.

Financial risk management is carried out by the finance department under policies approved by the Directors. The board provides written principles for overall risk management, as well as written policies covering specific areas such as foreign exchange risk, interest rate risk, credit risk and investment of excess liquidity.

The Company has exposure to the following risks as a result of its financial instruments: a) Credit risk

Credit risk arises from cash and cash equivalents and deposits with banks and financial institutions as well as credit exposures to customers, including outstanding receivables and committed transactions. Credit risk is the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company.

Credit risk is managed by the Board. The credit risk for each new client is analyzed before standard payment and service terms are offered. Credit risk arises from cash at bank and short-term deposits with banks, as well as trade and other receivables. The Company does not have any significant concentrations of credit risk.

For trade receivables, customers are assessed for credit quality, taking into account the financial position, nature of their business, past experience and other factors. The Company does not grade the credit quality of receivables.

The carrying amount of financial assets recorded in the financial statements representing the Company's maximum exposure to credit risk without taking account of the value of any collateral obtained is made up as follows:

	Neither past due not impaired	Past due not impaired	Impaired	
		Over 60 days	Over 365 days	Total
	Rwf	Rwf	Rwf	Rwf
At 30 June 2020				
Trade receivables	4,285,902,274	4,921,718,794	17,095,737,540	26,303,358,609
Other receivables	9,554,636,479	-	-	9,554,636,479
Bank balances	10,025,198,940	-	-	10,025,198,940
	13,840,538,753	4,921,718,794	17,095,737,540	35,857,995,087
At 30 June 2021				
Trade receivables	4,285,902,274	7,267,412,686	20,626,446,263	32,179,761,223

	Neither past due not impaired	Past due not impaired	Impaired	
		Over 60 days	Over 365 days	Total
	Rwf	Rwf	Rwf	Rwf
Other receivables	7,530,683,497	-	-	7,530,683,497
Bank balances	17,049,832,783	-	-	17,049,832,783
	11,816,585,771	7,267,412,686	20,626,446,263	39,710,444,720

# b) Market risk

Market risk is the risk that the fair value or future cash flow of financial instruments will fluctuate because of changes in foreign exchange rates, commodity prices and interest rates.

The objective of market risk management policy is to protect and enhance the balance sheet and income statement by managing and controlling market risk exposures within acceptable parameters and to optimize the funding of business operations and facilitate capital expansion. The Company is exposed to the following risks:

# (i) Currency risk

Currency risk arises primarily from purchasing imported goods and services directly from overseas or indirectly via local suppliers. The Company is exposed to foreign exchange risk arising from future commercial transactions and recognized assets and liabilities that are denominated in a currency other than the functional currency of the Company.

#### (ii) Commodity risk

The Company is exposed to price risk on the fuel that is used for the generation of electricity.

#### c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. Prudent liquidity risk management includes maintaining sufficient cash balances, and the availability of funding from an adequate amount of committed credit facilities. Due to the dynamic nature of the underlying businesses, the finance department maintains flexibility in funding by maintaining availability under committed credit lines.

The Board performs cash flow forecasting and monitors rolling forecasts of the Company's liquidity requirements to ensure it has sufficient cash to meet its operational needs. The Company's approach when managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, without incurring unacceptable losses or risking damage to the Company's reputation.

The carrying amount of financial assets recorded in the financial statements representing the Company's maximum exposure to credit risk without taking account of the value of any collateral obtained is made up as follows:

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	
	Rwf	Rwf	Rwf	Rwf
At 30 June 2020				
Trade payables	32,683,534,478	-	-	32,683,534,478
Other payables	23,351,050,169	-	-	23,351,050,169
Amount due to related parties	2,400,000,000	2,400,000,000	3,459,656,221	8,259,656,221
	58,434,584,646	2,400,000,000	3,459,656,221	64,294,240,867
At 30 June 2021				
Trade payables	31,526,991,135	-	-	31,526,991,135
Other payables	12,654,930,203	-	-	12,654,930,203
Amount due to related parties	2,400,000,000	2,400,000,000	3,456,145,652	8,256,145,652
	46,581,921,338	2,400,000,000	3,456,145,652	52,438,066,990

	For year ended 30 June	2021	2020
		Rwf	Rwf
6	Revenue		
	Sales of electricity - external	127,948,878,814	113,281,837,720
	Sale of electricity - internal	-	-
		127,948,878,814	113,281,837,720
7	Cost of sales		
	Purchase of electricity	83,018,687,919	77,525,442,785
	Fuel and lubricating oils	12,554,933,875	16,927,319,228
	Amortization of concession asset (note 16)	-	-
	Repairs and maintenance - generation	896,427,014	2,319,580,732
		96,470,048,808	96,772,342,745
	Realization of concession obligation (note 22)	-	-
		96,470,048,808	96,772,342,745
8	Grants and subsidies		
	Subsidies	9,962,269,179	11,000,000,000
	Realized grants	15,619,382,691	15,504,739,402
		25,581,651,870	26,504,739,402

Subsidies are received from Government as part of compensation for amounts not received under the tariff setting methodology. The Government, through the Rwanda Regulatory Authority, determines the tariffs to be charged to end users and a contribution to cover the shortfall between the Company's revenue requirement and the set tariff is given through subsidies.

Grants amounting to Rwf 15.6 billion (2020: Rwf: 15.5 billion) were realized as income proportionate to the write down of value of asset acquired and/or constructed.

	For year ended 30 June	2021	2020
		Rwf	Rwf
9	Other income		
	Connections and other non-energy sales	2,283,361,648	2,805,877,201
	Revenue from works	3,549,752,918	1,806,944,038
	Dark fibre revenue	632,594,935	725,352,243
	Grant Income	4,260,899,057	3,371,449,993
	Decrease in provision for bad and doubtful debts	-	-
		10,726,608,558	8,709,623,474
10	Distribution costs		
	Repairs and maintenance	3,895,236,653	5,275,296,774
	Electricity and connection works - internal	4,574,979,607	5,143,413,132
	Commissions	1,723,808,797	1,562,862,220
	Motor vehicle running expenses	936,476,863	888,048,310
	Provision for bad and doubtful debts	3,530,708,723	635,487,243
		14,661,210,644	13,505,107,680
11	Administrative expenses		
	Salaries and other related costs	10,292,400,331	10,595,727,810
	Consultancy and professional fees	1,109,822,172	1,000,599,493
	Support to EDCL	2,611,697,970	6,000,698,828
	License and other taxes	549,857,842	723,317,609
	Telephone charges	466,904,918	483,263,247
	Insurance	581,794,649	729,099,128
	Mission and travelling	957,521,528	972,768,774
	Office Supplies	399,589,515	277,166,343
	Advertising and promotions	70,124,613	33,733,239
	Refreshment and reception expenses	202,003,398	190,242,605
	Repairs and maintenance of buildings	258,313,244	191,678,936
	Security expenses	278,002,750	357,967,834
	Rents and rates	320,980,864	268,013,547
	Bank Charges and commissions	85,817,490	89,009,244
	Participations and contributions	142,735,578	23,912,575
	Gain on disposal of assets	(155,719,653)	(34,051,949)

	For year ended 30 June	2021	2020
		Rwf	Rwf
	Legal fees and damages	11,928,824	402,353,283
	Cleaning expenses	62,821,387	80,921,014
	Donations and charity	7,951,000	26,009,000
	Recovery expenses	20,338,983	5,084,746
	REG Facilitation	2,346,888,409	-
		20,621,775,811	22,417,515,306
12	Depreciation and amortization		
	Depreciation of assets	21,511,166,089	21,107,174,340
	Amortization of intangible assets	186,429,441	345,111,453
		21,697,595,529	21,452,285,792
13	Interest income and finance costs		
(a)	Interest income		
	Bank interest income	14,946,588	11,124,958
(b)	Finance costs		
	Exchange losses	5,283,712,326	880,294,063
	Interest on loan	4,756,140,950	4,909,261,756
		10,039,853,276	5,789,555,819
14	Income tax expense		
	Current income tax		
	Deferred income tax		
	- charge for the year	(1,241,668,057)	(224,109,601)
	- over provision in respect of prior years	-	-
		(1,241,668,057)	(224,109,601)

**Annual Report and Audited Financial Statements Energy Utility Corporation Limited** For the year ended 30 June 2021

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15.	15. Property, plant, and equipment	and equipment							
		Generation	Transmission	Distribution	Motor vehicles	Furniture and	Computer	Assets under	Total
		assets	assets	assets		fittings	equipment	construction	
		Rwf	Rwf	Rwf	Rwf	Rwf	Rwf	Rwf	Rwf
	<b>COST/VALUATI</b>								
	NO								
	At 1 July 2020	41,829,836,599	258,270,192,379	177,452,519,391	5,197,398,363	1,706,140,552	1,950,024,078	46,333,398,304	532,739,509,666
	AdjustmentOB	1	260,461,667	31,236,963.00		2,639,750.32		(260, 461, 667)	33,876,713
	Additions	•	1,271,365,914	743,847,977	716,644,237	68,432,482	243,338,436	10,679,684,997.18	13,723,314,043
	Assets transfers	1	2,971,340,729	2,838,786,840	1	'	'	-	5,810,127,569
	OB a djustments	I	2,490,949,742	1,972,924,754	-	1	1	1	4,463,874,495
	due to transfer								
	WIP Capitalization	I	20,234,361,974	1	I	I	I	(20, 234, 361, 974)	
	Disposals	I	1	(533,002,814)	(2,225,000)	I	I	I	(535,227,814)
	At 30 June 2021	41,829,836,599	285,498,672,406	182,506,313,110	5,911,817,600	1,777,212,785	2,193,362,514	36,518,259,660	556,235,474,673
	DEPRECIATION								
	At 1 July 2020	5,965,984,968	42,866,335,800	34,290,337,276	3,239,534,725	686,704,319	1,392,086,961	1	88,440,984,049
	Charge for the year	1,793,194,016	11,500,197,008	7,334,095,457	528,883,727.11	132,378,120.83	222,417,759.17	1	21,511,166,089
	Disposals	1	1	(142, 392, 543)	(1,828,993)	•	1	-	(144, 221, 536)
	Adjustments OB	I	(332,364,322)	588,810,734	I	3,708	I	•	256,450,120
	At 30 June 2021	7,759,178,984	54,034,168,486	42,070,850,924	3,766,589,459	819,086,148	1,614,504,720	1	110,064,378,722
	NET BOOK VALJIF.								
	At 30 June 2021	34,070,657,615	231,464,503,919	140,435,462,186	2,145,228,141	958,126,637	578,857,794	36,518,259,660	446,171,095,951
	At 30 June 2020	35,863,851,631	215,403,856,579		1,957,863,638	1,019,436,233	557,937,117	46,333,398,304	444,298,525,617
l									

Revaluation of property plant and equipment

at cost.

Sanitation Authority (EWSA) ("PMO") required valuation of assets to determine the value of assets to be allocated to the new entities including The Prime Ministers Order N°87/03 of 16/08/2014 Determining Modalities of Transfer of Responsibilities and Property of Energy, Water and The valuation was conducted by PwC Kenya who subcontracted Integrated Property Consultants Limited, a registered valuer in Rwanda. The The revalued amounts were recorded as opening balances of property plant and equipment of EUCL. Assets acquired after valuation were recorded EUCL. Accordingly, all assets in each category were valued except assets under construction (WIP) which was valued at cost. results of the valuation and adjustments were incorporated in the financial statement after approval by the Board

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As at 30 June	2021	2020
	Rwf	Rwf
At beginning of year	55,962,949,016	87,693,536,846
Movement	2,570,928,086	(31,730,587,830)
Adjustment	-	-
At end of year	58,533,877,102	55,962,949,016
Maturity analysis of the concession intangible asset		
Current	-	-
Non-current	58,533,877,102	55,962,949,016
	58,533,877,102	55,962,949,016
Non-current portion of financial asset		
The financial asset is recoverable as analyzed below:		
Between one and two years	-	-
Between two and three years	-	-
Between three and four years	-	-
Between four and five years	-	-
After five years	58,533,877,102	55,962,949,016
	58,533,877,102	55,962,949,016

Article 5 of the Prime Minister Order on transfer from public domain to private domain stated power plants shall remain property of the Government of Rwanda but shall be managed by the companies through concession agreements with the Government. In prior year the concessioned power plants had been treated as concessioned intangible assets from the beginning of the concession period until the concession agreements are concluded.

On the 5th of December 2017 the Cabinet of Rwanda approved the concessioned assets, and on the 28th of September 2018, the Government of Rwanda and the Company agreed on the amounts to be paid for the concession (Which is in a signed concession agreement) with payments commencing in August 2019, shareholders meeting of 19th November 2020 resolved to defer the payment of concession fees until 2030 other terms remaining the same.

As at 30 June	2021	2020
	Rwf	Rwf
Cost	3,583,429,038	3,583,429,038
Additions	651,420,196	670,668,518
Work-in-progress	4,659,677,322	3,989,008,804
Amortization		
At 1 July	2,732,135,976	2,394,699,177
Adjustment	-	(7,674,654)
Charge for year	186,429,440	345,111,453
	2,918,565,416	2,732,135,976
At end of year	5,975,961,136	5,510,970,385

#### 17. Intangible assets

#### 18. Inventory

As at 30 June	2021	2020
	Rwf	Rwf
Generation and other network materials	10,115,279,142	10,100,810,005
Fuel and lubricating oils	605,867,129	1,189,901,669
Other stock items	481,344,643	374,433,012
	11,202,490,914	11,665,144,686
Less: Provision for obsolete stock	(195,596,208)	(598,788,374)
	11,006,894,707	11,066,356,312

# **19. Trade and other receivables**

As at 30 June	2021	2020
	Rwf	Rwf
Trade receivables	32,179,761,223	26,303,358,609
Less: Provision for bad and doubtful debts	(20,626,446,263)	(17,095,737,540)
Net trade receivables	11,553,314,960	9,207,621,069
Other receivables	7,530,683,497	9,554,636,479
Prepayments	225,820,853	7,627,119
	19,309,819,310	18,769,884,667

In 2015, determination of the balances due from trade debtors was completed and this receivable was received as part of equity contribution from the shareholder.

Recoverability of trade debtors of approximately Rwf. 13.9 billion was extremely doubtful based on the quality of evidence available. Accordingly, a provision of the entire amount was made.

#### 20. Bank and cash balances

As at 30 June	2021	2020
	Rwf	Rwf
Cash at bank	17,033,444,779	10,025,198,940
Cash in hand	16,388,003	5,896,109
	17,049,832,783	10,031,095,049

The bank holds no collateral in respect of bank balances.

Bank balances are short term deposits made for varying periods depending on cash requirements of the Company.

#### 21. Share capital

	2021	2020
	Rwf	Rwf
Share capital		
Issued and paid	40,000,000,000	40,000,000,000

The Company's share capital at registration date was Rwf 3,000,000 made up of 3,000,000 shares of Rwf 1 each. The registration was done pending the reform process through the PMO which was to determine the share capital of the Company based on the valuation of assets. The net asset after valuation of Rwf 62.4 billion was recorded under reorganization reserves as at 1 July 2014 awaiting capitalization. Subsequently, adjustments of Rwf 6.7 billion were made

to arrive at net reorganization of Rwf 55.7 billion at 30 June 2015. A transfer of Rwf 40 billion from reorganization reserve to share capital has been made to arrive at a share capital of Rwf 40 billion and registered with the Rwanda Development Board. The balance Rwf 15.7 billion in the reorganization reserve was maintained to allow for future adjustment of transactions affecting prior periods and the residual amount shall be capitalized by the Directors upon a reasonable assessment.

At 30 June	2021	2020
	Rwf	Rwf
At beginning of year	55,962,949,016	87,693,536,846
Movement	2,570,928,086	(31,730,587,830)
Adjustment	-	-
At the end of the year	58,533,877,102	55,962,949,016
Maturity analysis of the financial asset		
Outstanding financial asset	58,533,877,102	55,962,949,016
Concession financial asset: Current portion	-	-
	58,533,877,102	55,962,949,016
Non-current portion of the obligation		
Maturity of concession obligation:		
Between one and two years	-	-
Between two and three years	-	-
Between three and four years	-	-
Between four and five years	-	-
After five years	58,533,877,102	55,962,949,016
	58,533,877,102	55,962,949,016

# 22. Concession Obligation

Article 5 of the Prime Minister Order on transfer from public domain to private domain stated power plants shall remain property of the Government of Rwanda but shall be managed by the companies through concession agreements with the Government. In prior year the concessioned power plants had been treated as concessioned intangible assets from the beginning of the concession period until the concession agreements are concluded. On the 5th of December 2017 the Cabinet of Rwanda approved the concessioned assets, and on the 28th of September 2018, the Government of Rwanda and the Company agreed on the amounts to be paid for the concession (Which is in a signed concession agreement) with payments commencing in August 2019, shareholders meeting of 19th November 2020 resolved to defer the payment of concession fees until 2030 other terms remaining the same.

# 23. Deferred income tax liability

Deferred income tax is calculated using the enacted income tax rate of 30%. The movement on the deferred income tax account is as follows:

At 30 June		2021	2020
	Note	Rwf	Rwf
At beginning of year		21,114,465,336	21,338,574,937
Credit to income statement	14	(1,241,668,057)	(224,109,601)
At end of year		19,872,797,279	21,114,465,336

As per IAS 12 "Income taxes" the amount of tax expense(income) relating to those changes in accounting policies and errors that are included in profit or loss in accordance with IAS 8, should be part of current year tax expense and related liability/ asset, because they cannot be accounted for retrospectively. Balances of financial year ended 30th June 2021 include correction of prior year errors in accordance with IAS 8.

Deferred income tax is calculated on all temporary differences using the liability method. The net deferred income tax liability is attributed to the following:

	At 1 July 2020	Charged/ (credited) to Statement of Comprehensive Income	At 30 June 2021
Period ended 30 June 2020	Rwf	Rwf	Rwf
Deferred income tax liabilities			
Accelerated tax depreciation	31,615,986,067	509,350,086	32,125,336,153
Deferred income tax assets			
Provisions	(1,469,390,748)	(1,021,111,311)	(2,490,502,059)
Tax losses carried forward	(9,032,129,983)	(729,906,832)	(9,762,036,815)
Net deferred income tax liability	21,114,465,336	(1,241,668,057)	19,872,797,279

### 24. Grants

Description	Rwf
At 1 July 2020	360,759,081,079
Additions	5,815,637,346
WIP Grants-additional-funded by Buffet	2,839,404,947
Adjustments	4,478,019,144
At 30 June 2021	373,892,142,516
Cumulative Grant realization 1 July 2020	59,797,382,609
Adjustments	343,195,566
Realized grants	15,619,382,691
	75,759,960,866
At 30 June 2021	298,132,181,650

### **25. Borrowings**

At 30.	June	2021	2020
		Rwf	Rwf
Borrowings			
Term loans			
Bank of Kigali Gishoma Loan	1	6,039,619,638	16,018,443,357
Equity Bank		4,220,207,550	4,626,088,196
RESSP	7	9,255,059,667	52,093,706,289
Bank of Kigali		7,424,106,770	8,537,564,378
Cogebanque		4,515,161,693	4,801,661,267
	11	1,454,155,318	86,077,463,487

At 30 June	2021	2020
	Rwf	Rwf
Less: Current portion- amount due within one year		
Bank of Kigali Gishoma Loan	(224,171,842)	-
Equity Bank	(463,128,225)	(405,880,646)
Bank of Kigali	(1,288,643,435)	(1,113,457,608)
Cogebanque	(326,628,488)	(286,499,565)
Amounts due within one year	(2,302,571,990)	(1,805,837,819)
Amounts due in more than one year	109,151,583,328	84,271,625,668

Rwanda Energy Sector Support Programme (RESSP) is a project that was commissioned to increase the population's access to electricity and energy capacity strengthening. The project is funded through a loan from the International Development Agency of \$95 million. At 30 June 2021, approximately \$73.8 million (Rwf. 72.8 billion) had been drawn. The loan attracts an interest of 0.75% per annum and a commitment fee of 0.5% per annum of unwithdrawn loan balance. Repayment of this loan will commence in February 2022 with the last loan installment in August 2053.

### 26. Amounts due to related parties

The Company's related parties include Rwanda Energy Group (REG) and Energy Development Corporation Limited (EDCL) which are all managed by one Board of Directors. REG is the parent Company of both EUCL and EDCL. The balances due from and to related parties at year end are:

	At 30 June	2021	2020
		Rwf	Rwf
(a)	Amounts due from related parties		
	Amounts advanced to EDCL	-	-
	Amounts advanced to REG	7,751,194,291	8,254,207,711
		7,751,194,291	8,254,207,711
(b)	Amounts due to related parties		
	Amounts due to REG	143,008,794	116,828,794
	EARP amounts collected on behalf of	4,179,012,396	6,728,042,181
	EDCL		
	Short-term borrowing from EDCL	1,534,124,461	1,414,785,246
		5,856,145,651	8,259,656,221
i	Current portion	3,934,124,461	3,814,785,246
ii	Long term portion	1,922,021,191	4,444,870,975

Included in amounts due from related parties is Rwf. 510 million was advanced to REG to purchase land on which the REG headquarters building will be constructed. The balance was advanced for purchase of vehicles, computers, payment of salaries and other administrative expenses.

There is no repayment schedule for this amount.

Amounts due to EDCL relate to amounts collected from customers as repayments of electricity connection charges that were advanced by EARP project managed by EDCL.

Short-term borrowing of Rwf. 2.0 billion was received from EDCL to cope with a delay in receiving subsidies from Government. The subsidies were received, and the borrowing retired. No interest was charged on this borrowing.

### 27. Trade and other payables

At 30 June	2021	2020
	Rwf	Rwf
Trade payables	31,526,991,135	32,683,534,478
Other payables	12,654,930,203	23,351,050,169
General provisions	4	-
	44,181,921,342	56,034,584,646

Trade and other payables are non-interest bearing and normally settled between 30 - 60 days terms.

### 28. Re-organization reserve

At 30 June	2021	2020
	Rwf	Rwf
Re-organization reserve		
Balance at year end	15,900,415,897	15,900,415,897

### 29. Contingent Liabilities

### Legal claims

The Company is a defendant in various legal actions arising in the normal course of business. The Company has been advised by its Legal unit that it is only possible but not probable that cases with claims amounting to Rwf 0.791 billion (2020: Rwf 1.52 billion) could be decided against the Company. Accordingly, no provision for liabilities relating to these cases has been made in these financial statements. The Company continues to defend itself against these actions and therefore it is not practical to reasonably determine the timing of the contingent liabilities.

### **30.** Contingent Assets

### a) Electricity theft cases

Every financial year, the company carries out various campaigns to prevent and fight against electricity theft, identified cases of offenders are sent to prosecution and other relevant authorities, the company has been advised by its revenue protection unit that it is only possible but not probable that cases amounting to Rwf 1.1 billion could be decided in favor of the company. The company continues to follow-up these files, and it is not practical to reasonably determine the timing of the realization of these cases.

### b) Case against Kibuye power limited

Kibuye power (independent power producer) failed and was put under liquidation when it was still owing EUCL an amount totaling to Rwf. 1.7 billion. Initially EUCL's claim had not been included on the creditors list to be settled during the liquidation. In court pronouncement of 12 January 2017, the liquidator was ordered to add EUCL on the list of creditors. Government of Rwanda through the ministry of finance and economic planning committed to pay Rwf. 1.2 billion on behalf of the liquidated company, However the amount to be recovered from the claim is dependent on the proceeds from the purchaser (symbion) and it is probable that EUCL

may not receive the amount and not practical to determine the timing of this cash flow, accordingly a provision of the full amount KP1 owed EUCL was done, and appropriate adjustments will be done once there is a recovered amount and unrecoverable amount.

### 31. Prior year adjustments on Retained Earning

The company adopted International Financial Reporting Standards (IFRS) to improve the quality of information shared with stakeholders. A detailed review of the financial statements necessitated effecting additional adjustments to fully comply with IFRS reporting. Some of these adjustments required effecting prior year. These adjustments are detailed below:

### Sales of power

An amount of Rwf 123 million related to refund of FDI (Rwf 59 million) of token not reached to end user (customer) and bill regularization of electricity consumed by So Energy (Rwf 182.3 million) were done in current year. But, to reflect the true picture of financial statements adjustment has been done through retained earnings.

### Cost of power

In 2020-2021 FY an independent power producer operating Janja HPP has invoiced the power supplied in 2016 and 2017 and million fuel taxes for the years of 2015, 2016 and 2017 were paid by EUCL in FY 2020-2021. Therefore, to reflect the true picture of financial statements adjustment totaling 763 million has been done through retained earnings.

### Inventory

In financial year 2020-2021 an amount of Rwf 388.4 million of obsolete inventory items related to prior year were not appropriately recorded into inventory. Then, correcting entries have been done through retained earnings.

### Trade and other payables

In financial year 2020-2021 EUCL has received invoices from suppliers related to the services and supplies done in prior year. This has brought in an adjustment to retained earnings amounting to Rwf 39.7 million.

### Other sales

An amount of Rwf 109 million related to Pole lease and other sales related to prior year were invoices in Financial Year 2020-2021. And this has been captured through retained earnings to reflect the true picture of financial statement.

### Administrative cost

An amount of Rwf 49 million related to previous year of administration expenditure were adjusted through retained earnings.

### **Staff Bonus**

In Financial year 2020-2021 an amount of Rwf 150 million related to 2019-2020 staff performance bonus was paid to EUCL staff and this has been adjusted through retained earnings to reflect the true picture of financial statement.

### Assets

In Financial Year 2020-2021, EUCL has received assets transferred from EDCL. in this asset transfer there were assets completed in previous year which brough in an adjustment of Rwf 781 million of related adjustments.

### Below is a summary of prior year adjustment on retained earnings:

	Rwf
Retained Earnings as previously stated (A)	30,417,244,316
Power Sales	(123,302,348)
Cost of Power	763,179,897
Inventory	(388,406,764)
Administrative expenses	49,308,683
Other Sales	109,144,150
Staff Bonus	150,071,936
Assets	(781,412,925)
Trade payables	(39,738,164)
Total Adjustment (B)	<u>(261,155,535)</u>
Net impact of prior year adjustments (A+B)	<u>30,156,088,781</u>

## **14 ANNEXES**

Annex 1: Installation capacity and its 2020/2021 annual generation

No	Plant name	LOCATION	<b>ON/OFF GRID</b>	Installed capacity	Effective	Generation (kWh)
				in MW	capacity (MW)	
1) Hydr	1) Hydro Power Plants generation					
1	Ntaruka	BURERA	ON GRID	11.250	9.00	42,939,000.00
2	Mukungwa 1	MUSANZE	ON GRID	12.000	12.00	74,301,292.00
e	Gisenyi	RUBAVU	ON GRID	1.700	1.70	10,993,532.00
4	Gihira	RUBAVU	ON GRID	1.800	1.80	12,004,805.00
S	Rukarara 1	NYAMAGABE	ON GRID	9.000	8.40	52,106,601.00
9	Rukarara 2	NYAMAGABE	ON GRID	2.200	2.20	14,259,720.00
٢	Murunda	RUTSIRO	ON GRID	0.100	0.80	633,312.00
×	Rugezi	BURERA	ON GRID	2.600	2.60	10,925,118.00
6	Keya	RUBAVU	ON GRID	2.200	2.10	11,979,169.00
10	Cyimbili	RUBAVU	ON GRID	0.300	0.30	1,592,000.00
11	Mazimeru	NYARUGURU	ON GRID	0.500	0.50	3,536,724.10
12	Nkora	RUTSIRO	ON GRID	0.680	0.65	3,421,590.00
13	Musarara	GAKENKE	ON GRID	0.400	0.40	2,965,952.00
14	Mukungwa 2	MUSANZE	ON GRID	3.600	3.60	22,100,709.00
15	Nshili 1	NYARUGURU	ON GRID	0.400	I	I
16	Giciyel	NYABIHU	ON GRID	4.000	3.50	14,850,129.00
17	Nyabarongo 1	MUHANGA	ON GRID	28.000	2.70	128,619,400.00
18	Nyabahanga	KARONGI	ON GRID	0.200	0.20	673,343.00
19	Janja	GAKENKE	ON GRID	0.200	I	I
20	GiciyeII	NYABIHU	ON GRID	4.000	3.70	16,705,775.00
21	Mutobo	MUSANZE	ON GRID	0.200	0.20	1,523,817.00

No	Plant name	LOCATION	ON/OFF GRID	Installed canacity	Effective	Generation (kWh)
				in MW	capacity (MW)	
22	Gaseke MHPP	GAKENKE	ON GRID	0.500	0.40	205,228.00
23	Gashashi	RUTSIRO	ON GRID	0.280	0.28	1,128,523.00
24	Rwaza	MUSANZE	ON GRID	2.600	2.60	20,059,838.00
25	RUKARARA V-	NYAMAGABE	ON GRID	2.300	2.00	11,416,458.00
	MUSHISHITO					
26	RUBAGABAGA	NYABIHU	ON GRID	0.450	0.45	1,637,369.92
27	Agatobwe	NYARUGURU	ON GRID	0.390	0.39	1,132,249.00
28	Nyirantaruko	NYAMASHEKE	ON GRID	1.840	1.84	7,048,494.83
29	KIGASA MHPP	MUSANZE	ON GRID	0.272	0.13	888,024.00
30	Giciye III	NYABIHU	ON GRID	9.800	9.80	24,102,207.00
31	Nyirabuhombohombo	NYAMASHEKE	ON GRID	0.650	0.65	636,940.00
32	Nyamyotsi2)	NYABIHU	OFF GRID	0.100	1	1
33	Nyamyotsi 1	NYABIHU	OFF GRID	0.100	1	1
34	Mukungu Pico	KARONGI	OFF GRID	0.016	0.02	10,111.32
Subtotal	1			104.628	74.91	494,397,431.17
2) Theri	2) Thermal Generation					
1	Jabana I	GASABO	ON GRID	7.800	1.50	1
2	Jabana II	GASABO	ON GRID	21.000	20.00	68,709,104.00
e	SO ENERGY	MUSANZE	ON GRID	10.000	10.00	16,243,260.00
	Mukungwa 1					
4	SO ENERGY MASORO	GASABO	ON GRID	10.000	10.00	6,286,710.00
S	SoEnergy Birembo	GASABO	ON GRID	10.000	10.00	1,472,550.00
Subtotal 2	12			58.800	51.50	92,711,624.00
3) Metha	3) Methane Gas Generation					
15	Methane Gas (KP1)	RUBAVU	ON GRID	3.600	1	1
25	Kivuwatt	KARONGI	ON GRID	26.190	26.00	206,836,578.84
Subtotal 2	12			29.790	26.00	206,836,578.84

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No	Plant name	LOCATION	<b>ON/OFF GRID</b>	Installed capacity in MW	Effective capacity (MW)	Generation (kWh)
4} Sola	4} Solar Generation					
1	Jali Solar	GASABO	ON GRID	0.250	0.15	118,731.20
2	GigaWatt Global	RWAMAGANA	ON GRID	8.500	6.50	13,086,610.00
3	NASHO SOLAR	KIREHE	ON GRID	3.300	2.50	4,853,944.19
Sub Total 3	tal 3			12.050	9.15	18,059,285.39
5} Peat	5} Peat Fired Power Plants Generation	tion				
1	Gishoma Peat	RUSIZI	ON GRID	15.000	15.00	28,634,100.00
2	Hakan QP	GISAGARA		I		1,943,301.03
Subtotal 4	14 14			15.000	15.00	30,577,401.03
6) Impo	6) Imports&Shared					
1	Ruzizi I	DRC		4.100	4.10	21,522,000.00
2	Ruzizi II	DRC		12.000	12.00	82,336,000.00
3	Kabale (UEB)	UGANDA		2.000	2.00	8,213,628.27
Subtotal 5	15			18.100	18.10	112,071,628.27
Total G	<b>Total Generation</b>			238.37	194.65	954,653,948.70
				2000		

## **Annex 2: Energy Generated by Plant**

IPPs Power Pluns           3         Gisenyi         724,8200         764,8260         838,8560         935,0220         987,448.0         1,009,158.0         1,009,966.0         843,973.0         945,463.0         1,014,036.0         1,031,551.0         858,413.0         10,993,552.0           4         Gibina         1,076,020.0         949,195.0         898,725.0         987,448.0         1,079,079.0         1,094,574.0         932,980.0         1,014,036.0         1,078,119.0         772,068.0         12,004,805.0           5         Rukarara         1,076,020.0         940,195.0         898,725.0         4,715,446.0         4,735,296.0         4,558,72.0         4,469,261.0         1,031,550.0         1,031,550.0         1,204,805.0           6         Rukarara         1,076,070.0         5,569.0         1,323,154.0         1,329,392.0         1,104,760.0         1,134,494.0         840,552.00         1,475,770.0         5,203,670.0         1,475,750.0         1,425,770.0           7         Muruuda         57,370.0         5,569.0         5,2417.0         8,358.0         1,314,494.0         840,552.0         1,425,770.0         5,1460.0         1,425,770.0         1,213,486.0         1,425,770.0         1,465,270.0         1,173,586.0         1,425,770.0         1,213,586.0	oN	Plant name	July	August	September	October	November	November December January		February	February March April		May	June	TOTAL
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	IPPs	Power Plants													
	3	Gisenyi	724,820.0	764,826.0		935,022.0	987,448.0		1,039,966.0	843,973.0	945,463.0	1,014,036.0	1,031,551.0	858,413.0	10,993,532.0
are 1 $4,02,646.0$ $3,661,783.0$ $4,205,687.0$ $4,713,296.0$ $4,655,872.0$ $4,69,261.0$ $2,23,077.0$ $5,23,067.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,486,628.0$ $3,137,620$ $1,513,650.0$ $1,137,586.0$ $1,137,386.0$ $1,137,386.0$ $1,137,386.0$ $1,213,984.0$ $1,513,650.0$ $1,713,586.0$ $57,370.0$ $56,590.0$ $52,695.0$ $52,417.0$ $52,3896.0$ $49,611.0$ $840,552.0$ $1,213,984.0$ $1,513,650.0$ $57,899.0$ $ada$ $57,370.0$ $55,695.0$ $55,181.0$ $52,417.0$ $82,5896.0$ $49,611.0$ $840,532.0$ $1,213,954.0$ $57,899.0$ $57,890.0$ $ada$ $56,530.0$ $55,695.0$ $52,417.0$ $52,896.0$ $49,611.0$ $840,532.0$ $1,29,2264.0$ $57,899.0$ $57,899.0$ $ada$ $55,514.0$ $1,205,912.0$ $1,269,038.0$ $12,64,135.0$ $1,233,82.0$ $1,233,423.0$	4	Gihira	1,076,020.0	940,195.0	898,725.0	985,495.0	1,044,557.0			932,980.0	1,039,937.0	1,063,056.0	1,078,119.0	772,068.0	12,004,805.0
ara 2 $1.248,625.0$ $1.031,713.0$ $1.086,238.0$ $1.234,556.0$ $1.323,315.4.0$ $1.323,324.0$ $1.137,560.0$ $1.513,650.0$ $1.713,586.0$ ada $57,370.0$ $55,590.0$ $52,695.0$ $55,181.0$ $52,417.0$ $84,065.0$ $51,34,494.0$ $840,532.0$ $1.513,650.0$ $1.713,586.0$ ada $57,370.0$ $55,690.0$ $55,181.0$ $52,417.0$ $48,065.0$ $53,820.0$ $49,291.0$ $57,890.0$ $57,890.0$ add $57,370.0$ $59,2,750.0$ $58,692.0$ $53,822.0$ $49,690.0$ $57,890.0$ $57,890.0$ add $904,757.0$ $593,275.0$ $986,043.0$ $1.205,912.0$ $1.269,038.0$ $955,689.0$ $703,822.0$ $70,293.0$ $1.739,264.0$ $687,844.0$ add $904,757.0$ $1.023,863.0$ $910,656.0$ $1.004,135.0$ $905,310.0$ $1.037,323.0$ $1.929,264.0$ $67,844.0$ $67,844.0$ $67,844.0$ $67,844.0$ $67,844.0$ $67,844.0$ $67,844.0$ $1.037,323.0$ $1.037,323.0$ $1.079,274.0$ <	ŝ	Rukarara 1	4,029,646.0				4,715,446.0	4,439,775.0	4,753,296.0	4,655,872.0	4,469,261.0	4,923,077.0	5,203,067.0	3,486,628.0	52,106,601.0
inda         57,370.0         56,559.0         52,181.0         52,417.0         48,065.0         53,896.0         49,611.0         46,466.0         53,842.0         49,291.0         57,899.0           :i         904,757.0         593,275.0         684,229.0         986,043.0         1,205,912.0         1,269,038.0         955,689.0         703,882.0         766,097.0         869,088.0         1,299,264.0         687,844.0           1,183,514.0         1,023,863.0         918,085.0         918,085.0         918,085.0         918,081.0         1,079,378.0         843,088.0	9	Rukarara 2	1,248,625.0	1,051,713.0	1,086,238.0				1,109,776.0			1,213,984.0	1,513,650.0		14,259,720.0
iii         904,7570         593,275.0         684,2290         986,043.0         1,205,912.0         1,269,038.0         1,269,038.0         703,882.0         703,882.0         703,882.0         1,929,264.0         687,844.0           1,183,514.0         1,023,863.0         918,085.0         918,085.0         910,956.0         1,004,135.0         905,310.0         1,073,445.0         1,079,378.0         843,908.0	7	Murunda	57,370.0	56,559.0	52,695.0	55,181.0	52,417.0	48,065.0	53,896.0		46,486.0	53,842.0	49,291.0	57,899.0	633,312.0
1,183,514.0 1,023,863.0 983,072.0 1,016,380.0 918,085.0 910,956.0 1,004,135.0 905,310.0 1,032,423.0 1,078,145.0 1,079,378.0 843,908.0 1	8	Rugezi	904,757.0		684,229.0	986,043.0		_	955,689.0	703,882.0	766,097.0	869,088.0	1,299,264.0	687,844.0	10,925,118.0
	6	Keya	1,183,514.0	1,023,863.0	983,072.0	1,016,380.0	918,085.0		1,004,135.0	905,310.0	1,032,423.0	1,078,145.0	1,079,378.0	843,908.0	11,979,169.0

$o_N$	Plant name	July	August	September	October	November	December	January	February	March	April	May	June	TOTAL
10	Cyimbili	106,360.0	92,060.0	104,740.0	135,310.0	148,910.0	137,870.0	158,870.0	149,860.0	126,080.0	158,480.0	154,660.0	118,800.0	1,592,000.0
11	Mazimeru	335,149.0	291,007.6	271,231.5	281,854.8	306,019.0	268,636.8	291,845.2	278,302.2	294,886.0	301,865.4	333,792.1	282,134.5	3,536,724.1
12	Nkora	205,230.0	174,170.0	226,870.0	297,070.0	335,370.0	333,540.0	359,080.0	312,910.0	286,570.0	337,520.0	322,850.0	230,410.0	3,421,590.0
15	Methane Gas(KP1)											,		
16	Jali Solar	10,587.2	11,336.8	10,690.4	-	-	-			-		'	,	32,614.4
17	Musarara	260,096.0	230,059.0	200,881.0	88,182.0	224,616.0	296,900.0	286,850.0	239,533.0	279,852.0	288,556.0	307,180.0	263,247.0	2,965,952.0
18	Mukungwa 2	1,939,291.0	1,956,903.0	1,870,721.0	2,057,294.0	2,084,332.0	1,961,633.0	1,679,543.0	1,201,934.0	1,822,560.0	1,702,493.0	1,959,610.0	1,864,395.0	22,100,709.0
20	GiciyeI	1,182,510.0	1,026,944.0	1,104,842.0	1,259,971.0	1,482,378.0	1,154,342.0	1,144,987.0	1,159,238.0	1,327,073.0	1,449,578.0	1,540,259.0	1,018,007.0	14,850,129.0
21	GigaWatt Global	1,168,350.0	1,169,470.0	1,146,820.0	1,062,590.0	1,003,860.0	1,112,460.0	1,007,230.0	916,670.0	1,111,910.0	1,120,940.0	1,106,910.0	1,159,400.0	13,086,610.0
24	Janja							,	,	,	,	1	1	
25	Kivuwatt	15,951,829.1	19,150,878.5	18,328,827.8	17,882,144.9	11,976,741.9	16,374,916.0	18,921,420.6	16,887,432.9	18,881,729.4	18,447,525.5	16,606,734.0	17,426,398.2	206,836,578.8
26	GiciyeII	1,363,523.0	1,172,825.0	1,240,219.0	1,380,596.0	1,629,613.0	1,202,392.0	1,287,323.0	1,328,177.0	1,569,953.0	1,640,896.0	1,738,044.0	1,152,214.0	16,705,775.0
28	Mutobo	128,129.0	126,707.0	113,856.0	112,019.0	137,544.0	140,373.0	140,611.0	118,265.0	128,558.0	110,830.0	134,398.0	132,527.0	1,523,817.0
29	Gaseke MHPP	40,272.0			,		33,553.0	51,472.0	,		43,853.0		36,078.0	205,228.0
30	SO ENERGY PMukungwa 1	925,560.0	663,480.0	831,960.0	1,648,640.0	1,969,920.0	1,995,770.0	320,030.0	447,000.0	1,434,440.0	964,210.0	932,440.0	4,109,810.0	16,243,260.0
31	SO ENERGY MASORO	158,050.0	154,080.0	101,800.0	466,750.0	871,550.0	787,770.0	93,420.0	432,290.0	358,340.0	206,790.0	127,890.0	2,527,980.0	6,286,710.0
32	SoEnergy Birembo	11,680.0	7,630.0	12,670.0	24,040.0	118,260.0	38,170.0	150.0	63,950.0	89,100.0	47,110.0	5,420.0	1,054,370.0	1,472,550.0
34	Gashashi	59,680.0	48,716.0	67,265.0	96,726.0	104,830.0	87,248.0	114,458.0	123,540.0	99,899.0	120,981.0	117,276.0	87,904.0	1,128,523.0
35	Rwaza	1,733,074.0	1,882,511.0	1,619,322.0	1,829,701.0	1,713,715.0	1,685,098.0	1,438,867.0	1,173,472.0	1,678,551.0	1,703,858.0	1,803,362.0	1,798,307.0	20,059,838.0
36	RUKARARA V- MUSHISHITO	959,586.0	857,310.0	842,816.0	966,002.0	1,078,995.0	936,244.0	987,950.0	746,938.0	921,915.0	1,116,440.0	1,253,931.0	748,331.0	11,416,458.0
37	RUBAGABAGA	139,897.0	92,440.0	106,528.0	133,133.0	203,224.0	108,024.0	144,972.0	130,653.0	139,653.9	156,480.0	201,591.0	80,774.0	1,637,369.9
38	Agatobwe		90,062.0	158,801.0	197,454.0	179,992.0	173,307.0	21,623.0	8,384.0	72,527.0	61,805.0	19,566.0	148,728.0	1,132,249.0
39	Nyirantaruko	438,952.0	301,158.0	373,710.0	465,272.4	580,296.4	734,193.0	787,668.0	785,313.0	612,746.0	644,667.0	900,960.0	423,559.0	7,048,494.8
40	KIGASA MHPP	41,874.0	52,694.0	5,014.0	82,092.0	87,032.0	80,390.0	83,256.0	76,146.0	84,378.0	94,416.0	104,787.0	95,945.0	888,024.0
41	Giciye III						2,789,640.0	3,383,710.0	3,170,107.0	4,077,889.0	4,021,750.0	4,047,210.0	2,611,901.0	24,102,207.0
42	Nyirabuhombohombo						55,555.0			1	153,660.0	307,865.0	119,860.0	636,940.0
43	Hakan QP									278,129.0			1,665,172.0	1,943,301.0
1	Nyamyotsi2 )		-	-	-	-	-	•	-			-		-
2	Nyamyotsi 1	•	-	-	-	-	-	-	-	-	-	-	-	-
Sub	Sub total 1	36,384,431.3	37,544,655.9	36,946,462.7	39,885,206.1	36,484,217.3	42,573,487.8	42,716,667.8	38,976,237.1	44,816,958.4	45,109,931.9	45,281,055.1	47,036,597.7	493,755,909.1
2) G(	2) GoR owned Power Plants													
1	Ntaruka	2,796,000.0	3,781,000.0	3,473,000.0	4,215,000.0	4,048,000.0	4,157,000.0	3,274,500.0	2,473,500.0	4,180,000.0	2,863,000.0	3,048,000.0	4,630,000.0	42,939,000.0
2	Mukungwa 1	6,504,766.0	6,511,191.0	6,347,120.0	6,838,815.0	6,961,122.0	6,446,054.0	5,512,131.0	4,391,463.0	6,115,639.0	5,957,983.0	5,950,469.0	6,764,539.0	74,301,292.0
3	Jabana I		-	-		-	-	-	-			-		1
4	Jabana II	6,260,352.0	5,334,432.0	5,181,216.0	6,843,168.0	7,022,912.0	7,383,776.0	4,221,632.0	4,049,664.0	7,021,216.0	3,883,136.0	4,397,632.0	7,109,968.0	68,709,104.0
2	Jali Solar		1		9,277.6	9,488.0	10,265.6	8,965.6	8,475.2	10,111.2	9,844.0	9,073.6	10,616.0	86,116.8

No	Plant name	July	August	September	October	November	December	January	February	March	April	May	June	TOTAL
9	Nshili 1	,	,	,				,	,	1	1	,	1	,
7	Nyabarongo 1	7,988,000.0	6,080,600.0	7,282,300.0	10,735,800.0	14,355,500.0	10,259,000.0	13,250,900.0	12,805,500.0	9,972,100.0	14,222,100.0	14,587,300.0	7,080,300.0	128,619,400.0
8	Nyabahanga	47,728.0	34,632.0	61,756.0	66,618.0	64,600.0	40,504.0	43,801.0	47,976.0	55,860.0	71,572.0	63,828.0	74,468.0	673,343.0
6	Gishoma Peat	8,560,475.0	8,779,925.0	7,378,250.0	1,585,100.0	,			,		1	,	2,330,350.0	28,634,100.0
10	NASHO SOLAR	431,863.6	448,476.0	438,581.8	433,437.1	408,310.5	407,184.5	361,877.6	296,333.0	401,508.2	404,785.0	387,667.5	433,919.4	4,853,944.2
11	Mukungu Pico	645.1	783.9	709.8	717.0	869.0	851.9	904.1	733.2	946.0	1,008.6	924.8	1,018.1	10,111.3
Total		32,589,829.7	30,971,039.9	30,162,933.6	30,727,932.7	32,870,801.5	28,704,636.0	26,674,711.3	24,073,644.4	27,757,380.4	27,413,428.6	28,444,894.9	28,435,178.5	348,826,411.3
) Im	3) Imports & shared generation	Ē												
	Ruzizi I	1,631,000.0	1,576,000.0	1,553,000.0	1,693,000.0	1,725,000.0	1,773,000.0	1,769,000.0	1,752,000.0	2,046,000.0	2,006,000.0	2,069,000.0	1,929,000.0	21,522,000.0
2	Ruzizi II	6,186,000.0	7,166,000.0	6,858,000.0	6,864,000.0	7,026,000.0	6,786,000.0	6,486,000.0	6,434,000.0	7,212,000.0	6,590,000.0	7,584,000.0	7,144,000.0	82,336,000.0
3	Kabale (UEB)	813,308.3	750,515.6	577,368.3	557,131.9	607,840.1	799,708.9	757,344.1	606,233.3	747,859.0	738,860.1	592,947.7	664,510.9	8,213,628.3
Sub t	Sub total 3	8,630,308.3	9,492,515.6	8,988,368.3	9,114,131.9	9,358,840.1	9,358,708.9	9,012,344.1	8,792,233.3	10,005,859.0	9,334,860.1	10,245,947.7	9,737,510.9	112,071,628.3
t) Ext	4) Exports													
	Cyanika - Gisoro	355,297.7	370,987.2	351,441.9	408,083.2	436,667.5	425,632.0	412,831.1	369,430.2	429,802.5	444,943.3	499,196.8	481,301.1	4,985,614.5
2	Gisenyi - Goma								1	41,943.0	i		489,360.0	531,303.0
3	Mururu II	2,000.0	,	2,000.0	4,000.0	,	,	,	2,000.0	2,000.0	1	2,000.0	2,000.0	16,000.0
4	Kamanyola	141,279.3	99,018.0	129,078.0	126,128.0	127,242.0	132,858.0	135,924.0	149,832.0	174,000.0	159,870.0	165,210.0	162,650.0	1,703,089.3
Sub t	Sub total 4	498,577.0	470,005.2	482,519.9	538,211.2	563,909.5	558,490.0	548,755.1	521,262.2	647,745.5	604,813.3	666,406.8	1,135,311.1	7,236,006.8
otal	Total Generation	77,604,569.4	78,008,211.4	76,097,764.6	79,727,270.7	78,713,858.9	80,636,832.6	78,403,723.2	71,842,114.9	82,580,197.8	81,858,220.6	83,971,897.7	85,209,287.1	954,653,948.7
Vatio.	National requirement	77,105,992.4	77,538,206.2	75,615,244.7	79,189,059.5	78,149,949.4	80,078,342.6	77,854,968.1	71,320,852.7	81,932,452.3	81,253,407.3	83,305,490.9	84,073,976.0	947,417,941.9
DAILY GENER	DAILY AVERAGE CENERATION	2 503 373 2	25163939	2 536 592 2	2 571 847 4	2 673 795 3	2.601.188.1	2 529 152 4	2.565 789 8	2 663 877 3	2 778 607 4	0 708 770 0	3 840 309 6	<u> 1 615 400 3</u>

<u>Annex 3: Power Plants Performance Indicators (2020/21)</u>

N/S	Name of plant and COD	Installed	Expected	Energy	Performance	Comments
	date or Commissioning date	capacity (MW)	energy	Generation in MWH		
I. H	I. Hydropower Plants					
1	<b>GIHIRA</b> (COD: Oct. 2017)	1.8	10,249.20	12,004.81	117%	Plant is well performing and by considering COD date, performance is 119%
7	GISENYI (Operational since 1957 and COD reached in May 2018 after plant rehabilitation and	1.7	9,057.74	10,993.53	121%	Plant is well performing and considering COD date, performance is 121%
	upgrade)					
3	RUKARARA I	6	32,000	52,106.60	163%	- Plant fully operational and well performing and performance is
	(Commissioned in Dec/2010					a lways a bove 110% since March 2021
	and leased in February 2013)					
4	RUKARARA II	2.2	13,490.40	14,259.72	106%	Plant is well performing
	(Commissioned in					
	March/2014)					
5	NTARUKA (Commissioning	11.25	22,000	42,939	195%	Even if the plant is used as peaking load, the plant was used during
	date: 1959, Rehabilitated in					the fiscal year 2020/2021 as there was enough water in its reservoir
	1986 and major repairs in					(Burera lake)
	1995, 1996 and 1997 for 3					
	units respectively)					
9	MUKUNGWA I	12	48,000	74,301.29	155%	Performance is high because there was enough water in the
	(Commissioned in 1981 after					reservoir (Ruhondo lake)
	its construction and					
	recommissioned in					
	December/2015 after					
	reha bilitation)					

Comments	Plant is well performing and this good performance is based on high generation of Mukungwa 1 HPP	The plant is being used to give spinning reserve for network stability. And operation of the plant was affected during the lockdown period		- The plant was slated for upgrade since Sept.2015 to Dec.2018 when the COD was reached. The assessment before its COD is not applicable	- From then, the plant 's performance substantially improved to 92% for 2019 since January to December 2019 and 122% for FY 2019/2020 since July 2019 to June 2020	From COD date achieved in Dec/2018, performance of 2019 and 2020 was 57% and 82% respectively. There was improvement for fiscal year 2020/2021 and ordinary year 2020 by considering COD date	Considering COD date, performanœ is 101%	Plant fully operational and well performing. Performance is always above 100% for the three respective years by considering COD date	There is improvement in performance of 2020/2021 compared to previous fiscal years and by considering COD date, performance was 95%	There is improvement in performance of 2020/2021 compared to previous fiscal years and by considering COD date, performance was 90%
Performance	102%	88%	124%	132%		82%	94%	177%	93%	%66
Energy Generation in MWH	22,100.71	128,619.40	11,979.17	1,592.00		3,421.59	10,925.12	3,536.72	1128.523	633.312
Expected energy	21,648.34	145,520	9,636.00	1,208.80		4,169.76	11,563.20	1,995	1,208	642
Installed capacity (MW)	3.6	28	2.2	0.3		0.68	2.6	0.5	0.28	0.1
Name of plant and COD date or Commissioning date	MUKUNGWA II (COD :Jan 2019)	NYABARONGO (Commissioned in December 2014)	KEYA (COD: December 2018)	CYIMBILI (COD: December 2018)		<b>NKORA</b> (COD: December 2018)	RUGEZI (COD: May 2017)	MAZIMERU (COD: May 2013)	GASHASHI (COD: May 2018)	MURUNDA (COD: March 2010)
S/N	7	×	6	10		11	12	13	14	15

S/N	Name of plant and COD date or Commissioning date	Installed capacity (MW)	Expected energy	Energy Generation in MWH	Performance	Comments
16	MUSARARA (COD: February 2013)	0.4	2,277.60	2,965.95	130%	Plant is well performing
17	JANJA (Commissioned in December/2012)	0.2	1,051	0	%0	<ul> <li>The plant was leased when completely down and only worked for few days pending full upgrade</li> <li>Rehabilitation works are on going</li> <li>Assessment of will be done when the plant reaches COD</li> </ul>
18	NYAMYOTSI 1 (Commissioned in 2007 as off grid solution)	0.1	525	0	%0	<ul> <li>The plant was leased when completely down and upgrade ha ted by access roads and bridges which are now under construction</li> <li>Assessment of will be done when the plant reaches COD</li> </ul>
19	NYAMYOTSI 1 (Commissioned in 2011 as off grid solution)	0.1	525	0	%0	<ul> <li>The plant was leased when completely down and upgrade halted by access roads and bridges which are now under construction</li> <li>Assessment of will be done when the plant reaches COD</li> </ul>
20	MUTOBO (COD: December/2016)	0.2	1,226.40	1,523.82	124%	Since COD date and plant be on grid, it is performing above 100%
21	AGATOBWE (1st commissioning in December 2009 as off grid solution and 2nd commissioning and COD in March 2020)	0.39	2,221	1,132.25	51%	Since the COD date after the rehabilitation and upgrade, plant operations was affected by flood, landsliding and spillway breakdown. These are factors that lead to poor performance of the plant
22	NSHILI (Commissioned in Jan. 2013)	0.4	1,750	0	%0	Plant was stopped because of heavy rain of April to May 2020 in the area and lead to the damage of spillway channel, tailrace wall and the surrounding of power house
23	NYABAHANGA (Commissioned in December/2012)	0.2	1,150	673.343	59%	Performance of plant during the fiscal year 2020/21 was affected by frequent stoppage caused by rain in catchment area that led to flooding
24	N.HOMBOHOMBO (Commissioned in Dec/2013	0.65	3,080.00	636.94	21%	- The plant was leased when completely down and only worked for few days pending full upgrade

Performance Comments	Assessment of will be done when the plant reaches COD	114%         Plant fully operational and well performing. Considering the COD           date, performance is 114%	<ul> <li>100% There is improvement in performance compared to the previous years. This depends on weather conditions. Considering the COD date, performance is 92%</li> </ul>	9%     Plant performance was mainly affected by long period of stoppage since the heavy rain of May 2020 that caused instability of soil at canal path way. By considering COD date, performance is 29%.	<ul> <li>99% During FY 2020/21, there is performance improvement and by considering the COD date, performance is 80%. Performance of Rwaza Muko depends on that of Mukungwa 1 HPP</li> </ul>	<ul> <li>52% Only Mushishito phase was commissioned in May 2019. Phase on Rukarara river is under construction and performance assessment shall be done upon the completion of Rukarara phase</li> </ul>	79% Performance is not good because of frequent grid failure and flood that lead to frequent stoppage of plant	96% Performance of the plant is good and COD was achieved in August 2020.	163% Performance assessment shall be done at the end of May 2021	75% Plant commissioned in December 2020 and performance evaluation shall be conducted based on COD date
Energy Generation in MWH		14,850.13	16,705.78	205.23	20,059.84	11,416.46	1,637.37	7,048.49	888.02	24,102.21
Expected energy		13,000.00	16,700.00	2,400.00	20,226.00	22,000.00	2,080.00	7,336.00	546.00	32,191.95
Installed capacity (MW)		4	4	0.5	2.6	Ś	0.5	1.84	0.272	9.8
Name of plant and COD date or Commissioning date	and recommissioned in Dec 2020)	GICIYE 1 (COD: June 2014)	GICIYE 2 (COD: Dec. 2016)	GASEKE (COD: Feb. 2017)	RWAZA -MUKO (Commissioned in September 2018 and COD: January 2019)	<b>Rukarara V Mushishito</b> (COD reached in May 2019)	RUBAGABAGA (COD reached in January 2020)	NYIRANTARUKO (Commissioned in March 2020)	KIGASA (COD achieved in May 2020)	Giciye III (Commissioned in Dec/2020)
S/N		25	26	27	28	29	30	31	32	33

Comments	Plant fully operational and well performing	Plant was stopped by MININFRA since April 2016 because of environmentalissues	The plant was commissioned and operated in FY 16/17 and thereafter, it has been facing shortage of peat due to mining of peat that becomes impossible during wet season. However, the plant has been meeting optimum performance approved to date.			Plant is meeting the performance	Plant is well performing		Plant was not operated during FY 2020/2021 and it is for emergency use and peakingload	Plant is of emergency use	Plant is of emergency use	Plant is of emergency use	Plant is of emergency use
Performance	112%	%0	27%		37%	115%	112%		%0	47%	N/A	N/A	N/A
Energy Generation in MWH	206,836.58	00.0	28,634.10		118.73	13,086.61	4,853.94			68,709.10	16,243.26	6,286.71	16,243.26
Expected energy	185,000.00		105,000.00		325.00	11,346.72	4,336.00		54,666.00	147,168.00	70,080.00	70,080.00	70,080.00
Installed capacity (MW)	26.19	3.5	15		0.25	8.5	3.3	((	7.8	21	10	10	10
Name of plant and COD date or Commissioning date	KIVUWATT (COD achieved in December 2015)	Methane Gas (KP1)	<b>GISHOMA PEAT</b> (Commissioned in Dec.2016)	III. Solar Power Plant	<b>JALI SOLAIRE</b> (Commissioned in 2007)	GIGAWATT (Commissioned in Aug.2014)	NASHO (Commissioned in Dec.2016)	IV. Thermal Power plant (HFO/LFO)	JABANA I (October 2004)	JABANA II (April/2009)	SOENERGY BIREMBO (COD: Sept. 2017)	SOENERGY MASORO (COD: Aug. 2017)	SOENERGY MUKUNGWA (COD: July 2017)
S/N	34	35	36	III. S	37	38	39	IV. T	40	41	42	43	44

Note: Some of hydropower plants such as Nshili, Gaseke and Agatobwe were affected by heavy rain of May 2020 and its consequences. This led to frequent stoppages of Agatobwe and Gaseke up to 2021 while Nshili is still off up to date because most of civil infrastruc ture were damaged. And consequences of May 2020 heavy rain affected performance of all power plants injecting their power to Gisenyi and Kirambo feeders during the reconstruction of destroyed tower where all power plants in area were obliged to reduce their generation

# Annex 4: Implementation of Distribution projects

## Implemented Customers projects/Services

Hub	Branch	Project description	Start date	End date	Quotation/ amount (Rwf)	Completed/ Ongoing	<b>Overall</b> progress
SOUTHERN	NYARUGURU	Relocation EUCL Infrastructures located along the road Huye-Kibeho-Ngoma/Munini which shall affected during the works of upgrading it ( part Nyaruguru)	1/6/2020	1/12/2020	10,312,771	Ongoing	%66
	MUHANGA	Suspension and tension overhead cable 4*35+54.6 mm <sup>2</sup>	24/08/2020	24/08/2020	712,500	Completed	100%
	NYARUGURU	Makera, Cyeza Gerard RUKEMAMPUNZI Electrification of 2 Sites of NYAMABUYE	30/08/2020 01/06/2020	30/8/2020	70,000 33,042,527	Completed Completed	100% 100%
		Cell/MATA Sector under EDCL Electrification of 1 Site of BUNGE Cell/Sector Rusenge under EDCL	01/06/2020		27,039,073	Completed	100%
	MUHANGA	Relocation of EUCL Utilities on Road CYAKABIRI-RIAM-MISIZI & RUVUMERA- NYABISINDU-ADEPER-ICK	7/6/2020		74,154,998	Completed	100%
	NYARUGURU	Relocation EUCL infrastructures along the road Huye - Kibeho - Ngoma/Munini (part of Nyaruguru)	3/5/2020		13,253,360	Completed	100%
	MUHANGA	Constructed small LV Line for connected Model Village	03/09/020		233,663	Completed	100%
		Constructed small LV Line for connected many Houses	08/09/020		326,930	Completed	100%
		Relocation of EUCL Utilities on Road CYAKABIRI-RIAM-MISIZI & RUVUMERA- NYABISINDU-ADEPER -ICK	7/6/2020		74,154,998	Completed	100%
	Ruhango	Constructed small LV Line for connected Model Village	03/09/020		233,663	Completed	100%
	HUYE	Supervision for relocation of EUCL Utilities during Asphalt roads Construction in Huye City	14/05/2020		8,509,857	Completed	100%

CENA	Kicukiro	Relocation of EUCL infrastructure along the road SONATUBES-NYANZA	22/1/2021		990,529,909	Ongoing	45%
	Kicukiro	Relocation of EUCL infrastructure along the road SONATUBES-AKAGERA	4/3/2019		120,047,013	completed	100%
	Kicukiro	Relocation of EUCL at Rebero for Defence Research Development (DRD) Client Engineering Brigade	18/2/2021		1,629,442	completed	100%
	Kanombe	Relocation of EUCL Infrastructure along the concrete road at MURINDI	30/6/2020		9,752,693	completed	100%
		Relocation of EUCL Infrastructure along the concrete road at MURINDI Addition works	1/10/2020		18,613,879	Completed	100%
	Kanombe	Relocation of EUCL Infrastructure in Kanombe military camp	5/4/2021	17/4/2021	3,235,436	Completed	100%
	Jabana	Upgrad of 250 to 500kVA PROWATER Transformer	14/4/2021		11,521,083	Completed	100%
	Kacyiru	Relocation of EUCL Infrastructure at Kinamba retaining wall	8/2/2021		37,978,643	Completed	100%
	Kacyiru	Relocation and power supply of MV & LV Line at Nyarutarama Golf	17/6/2020	15/7/2020	21,959,664	Completed	100%
	Kacyiru	Relocation of MV UG Cables in Vision City	26/08/2020	5/9/2020	11,000,000	Completed	100%
	Kacyiru	Installation of Exibution Site for CHOGM RWANDA 2021.	24/3/2021		128,173,738	Completed	100%
	Nyarugenge	Installation of 630kVA transformer at Ruliba	24/11/2020		5,216,284	Completed	100%
		New road Agatare in Kiyovu Phase II(Erecting one LV pole and stringing 2 spans of twisted cable)	4/9/2019		54,000,000	Completed	100%
		Relocation of EUCL infrastructure along the road Agatare phase III	26/3/2021		38,206,920	Completed	100%
	Kanombe	Relocation of EUCL infrastructure on the road Kabeza-Remera.	9/3/2020		40,538,439	Completed	100%
	Remera	Relocation of LV pole from customer plot at Kibagabaga	22/9/2020		425,370	Completed	100%
		Relocation of EUCL Infrastructire from Golf club Nyarutarama	1/4/2021		61,343,985	Completed	100%

	Kicukiro	Suppervision of EUCL infranstructure relocation		3011/2020	7,550,201	Completed	100%
	Kicukiro	Replacement of Deffected transformer in Yego	19/5/2021	4/6/2021	8,648,144	Completed	100%
KIGALI	BUGESERA	Manutacturers at Gananga industrial zone Relocation of LV Poles at Kamabuye in Bugesera hranch ( Hunan road & Bridger Project	13/07/2020		20,587,827	Completed	100%
		Relocation of MV&LV Poles at Kamabuye in	15/01/2021	30/05/2021	13,721,341	completed	100%
		Bugesera branch ( Hunan road & Bridget Project) second phase					
	KANOMBE	Line Extension at Rusororo/Nyagahinga	28/05/2021	28/05/2021	0	Completed	100%
		Line Extension at Nyarugunga/Kamashashi	4/6/2021	4/6/2021	0	Completed	100%
	KAMONYI	EXTENSION OF 1 POLE KIGEMBE (Nizevimana Frederic)	15/01/2021	15/01/2021	26,253.0	Completed	100%
		Extension of 6 poles RUNDA	22/02/2021	28/02/2021	92,656.0	Completed	100%
		EXTENSION OF 1 POLE GACURABWENGE (Mushimba) (Nizevimana Frederic)	1/2/2021	1/2/2021	26,253	Completed	1000%
		EXTENSIÓN OF 32 POLES RUGALIKA (Hacenimana Abdoul)	9/12/2020	12/12/2020	592,997.0	Completed	100%
		EXTENSION OF 4 POLES RUGALIKA (Karahamuheto Emmanuel)	10/12/2020	11/12/2020	61,771.0	Completed	100%
		EXTENSION OF 1 POLE MUSAMBIRA (Mbarushimana Theoneste)	9/12/2020	9/12/2020	20,075.0	Completed	100%
		EXTENSION OF One POLE GACURABWENGE (Ntezimana Jean Paul)	16/12/2020	16/12/2020	18,531.0	Completed	100%
		EXTENSION OF One POLE RUNDA (Gad Shumbusho)	15/12/2020	15/12/2020	16,987.0	Completed	100%
		EXTENSION OF 2 POLES RUNDA (Nzeyimana Jean Claude)	15/12/2020	15/12/2020	37,062.0	Completed	100%
		RELOCATION OF ONE POLE RUNDA (Ishimwe Jean De Dieu)	14/12/2020	14/12/2020	20,940	Completed	100%
		EXTENSION OF SIX POLES RUNDA (SIBOMANA Athanase)	23/12/2020	23/12/2020	95,744.0	Completed	100%
		Relocation OF one (1) pole at Habarurema	9/12/2020	9/12/2020	20,060	Completed	100%

T'UT UIL J'VAL VI	rot the feat chaca so gain 2021						I
	( (	Extension of 3 wooden poles GISHYESHYE (Uwamaria Claudine)	6/10/2020	6/10/2020	49,416	Completed	100%
	H	Extension of one pole 2 wooden poles GACURABWENGE (Nkundimana Canisius)	5/10/2020	5/10/2020	23,096	Completed	100%
	4	ı Pole N	10/12/2020	10/12/2020	18,531.0	Completed	100%
		Extension of 2 wooden poles Gacurabwenge (Nibayoboke Alphonsine)	10/12/2020	10/12/2020	43,239	Completed	100%
	H )	Extension of 1 Wooden Pole Gacurabwenge (Marie Mukeshimana)	10/16/2020	10/16/2020	25,635	Completed	100%
	H )	Extension of 2 wooden poles Gacurabwenge (Migambi Faustin)	10/14/2020	10/14/2020	35,885	Completed	100%
		Extension of 2 Poles RUNDA at Runda(Nyirabutoragurwa)	9/11/2020	10/11/2020	27,797.0	Completed	100%
		Extension of 2 Poles at RUNDA( Niyibizi Jean Claude)	10/11/2020	10/11/2020	37,062.0	Completed	100%
	H	Extension of 7 wooden poles Rugalika	15/9/2020	19/9/2021	123,541	Completed	100%
	H	Extension of one pole 3 wooden poles Rugazi	15/9/2020	16/9/2020	49,416	Completed	100%
	I	Extension of one pole 1 wooden pole MUGINA	31/08/2020	31/08/2021	10,682	Completed	100%
	F	Relocation of LV Line Ruyenzi	15/09/2020	15/09/2020	17,746	Completed	100%
	I	Extension of 2 wooden poles Runda (Murigo)	8/9/2020	9/9/2021	38,607	Completed	100%
		Extension of one pole 5 wooden poles Nyagihamba (Ngarambe Silas)	8/9/2020	12/9/2020	77,213	Completed	100%
	H	Extension of 2 wooden poles Karama	9/25/2020	9/25/2020	35,827	Completed	100%
	I	Extension of 3 wooden poles at Nyagasozi	9/25/2020	9/26/2020	23,096	Completed	100%
	F	Relocation of LV line at GS Kayumbu	9/23/2020	9/27/2020	17,746	Completed	100%
	T.	Relocation of LV Poles at Rugobagoba	23/09/2020	28/09/2020	475,134	Completed	100%
	H	Relocation of one wooden pole Ruyenzi	18/09/2020	18/09/2020	20,940	Completed	100%
	I	Extension of one pole 4 Poles KIGESE	43901	43901	61, 771	Completed	100%
	H	Relocation of one Poles RUNDA (MVANO Jean	17/11/2020	17/11/2020	20,060.0	Completed	100%
		De Dieu)					
	E	Extension of one poles (NYOMONGO Julias)	18/11/2020	18/11/2021	17,798.0	Completed	100%

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		Shifting meter Centre de Sante Kayumbu	19/11/2020	19/11/2021	20,080.0	Completed	100%
		Extension of 1 Pole at BIMBA(Ntakirutimana)	9/11/2020	10/11/2020	21,620.0	Completed	100%
		Extension of one pole 1 Pole Runda	43932	43932	23,557.0	Completed	100%
		Relocate Pole Nyagacaca	43962	43962	23,557.0	Completed	100%
		Extension of one pole 2 Poles NYABITARE	43901	43932	29,650.0	Completed	100%
		Extension of one pole	14/08/2020	14/08/2020	19,767	Completed	100%
		Extension of 5 poles	14/08/2020	15/08/2020	77,213	Completed	100%
		Extension of 2 poles	14/08/2020	16/08/2020	24,708	Completed	100%
		Shifting one pole	13/08/2020	13/08/2020	17,746	Completed	100%
		Extension of 3 poles	12/8/2020	12/8/2020	46,328	Completed	100%
		Line Extension (MUREBWAYIRE Jesca)	25/08/2020	26/08/2020	61,984	Completed	100%
		Line Extension (KALISA Jeremie)	27/08/2020	27/08/2020	61,019	Completed	100%
		Line Extension (IYAKAREMYE Marc)	24/08/2020	27/08/2020	32,992	Completed	100%
		Extension of one pole 1 wooden pole Kabagesera	28/08/2020	28/08/2021	26,253	Completed	100%
		(Nteziyaremye Fabrice)					
		Extension of one pole 6 wooden poles Rugalika	26/08/2020	26/08/2020	54,049	Completed	100%
		Sheri (Nyabyenda Damien)					
		Extension of one pole one wooden pole Rugalika	26/08/2020	26/08/2020	11,548	Completed	100%
		Joseph)					
		Shifting one LV line Ruyenzi (Jeanne	25/08/2020	25/08/2020	17,746	Completed	100%
		of an aclo an moden			0 661	Committeed	10002
		Extension of one pole one wooden pole Kabagesera (Tugirimana Aimable)	24/00/2020	24/08/2020	0,001	compreted	100%
		Relocation of LV line	18/08/2020	19/08/2020	17,746	Completed	100%
		Extension of 2 poles GACURABWENGE	23/02/2021	23/02/2021	37,062.0	Completed	100%
		EXTENSION OF 1 POLE GIHARA (Ndahimana	15/01/2021	15/01/2021	24,708.0	Completed	100%
		Pascal)					
		EXTENSION OF 10 POLES KABAGESERA	13/01/2021	17/01/2021	154,426.0	Completed	100%
		I herese)				,	
		EXTENSION OF 4 POLES MUGANZA	13/01/2021	17/01/2021	74,125.0	Completed	100%
		uise)					10007
		EXTENSION OF 3 POLES (NTAGWERA	21/01/2021	21/01/2021	46,328.0	Completed	100%
		Vedaste)					

Work of relocation of Ly & My line on Karuruma
Relocation of MV & LV Poles at Karuruma in Jabana branch (CRB Project)
LV rehabilitation at Gissozi
Supervision for relocation of MV Overhead line
passing across the road boundaries at vicen runs Academy
NTAMUSHOBORA JEAN PAUL
LINE AT TREND
CONSTRUCTION CO., LTD IN RUKIRI I TO ENABLE THEM TO CONTINUE THEIR PROJECT OF CONSTRUCTION
Line Extension at Masaka/Gitaraga(HITIMANA Straton)
located in Kanombe
Station at
(SINDAYIHEBA
at Masaka/Gako(GAKWAYA
Martin) Line Extension at Busanza(IZABAYO Joyeuse)

		Line Extension at Masaka/Cyimo(KABATESI Joy)	30/10/2020	30/10/2020	25,580	Completed	100%
		Line extension at Masaka (SINYIRABURANGA Solange)	10/10/2020	11/10/2020	37,925	Completed	100%
		Line Extension at Masaka/Gako	13/10/2020	16/10/2020	93064	Completed	100%
		Relocation of 2 Wooden Poles COPRORIZ	5/10/2020	5/10/2020	17,746	Completed	100%
		Line Extension at Nyarugunga(TWAHIRWA Emmanuel)	43872	43872	47,590	Completed	100%
		Line Extension at Nyakariro/Gishore(Olivier NIZE YIMANA)	18/11/2020	20/11/2020	77,467	Completed	100%
		Line Extension at Nyakariro/Gishore(HARERIMANA Straton)	20/11/2020	20/11/2020	25,580	Completed	100%
		Line Extension Nyarugunga(BESIIME Manzi Anne)	3/12/2020		101,141	Ongoing	60%
		Line Extension at Rusororo(HAKIZIMANA Amiel)	43901	43901	31,139	Completed	100%
		Relocation of MV Overhead line passing in plot of Mr BAYINGANA Moses located at Gacuriro	7/11/2020	20/11/2020	858,281	Completed	100%
		Line Extension (MUREBWAYIRE Jesca)	25/08/2020	26/08/2020	61,984	Completed	100%
		Line Extension (KALISA Jeremie)	27/08/2020	27/08/2020	61,019	Completed	100%
		Extension of one pole 8 wooden poles MUREHE KABUGA	3/9/2020	5/9/2020	114,276	Completed	100%
		Extension of one pole 5 wooden poles KAYUMBU	4/9/2020	6/9/2020	92,656	Completed	100%
		Extension Ruhanga(UWIMANA Jeannette)	02/09/020	02/09/020	57,619	Completed	100%
		Extension 12km(KARISA Jeremie)	03/09/020	03/09/020	61,019	Completed	100%
		Poles Shifted at Busanza	8/9/2020	9/9/2020	58,465	Completed	100%
		Line Extension (IYAKAREMYE Marc)	24/08/2020	27/08/2020	32,992	Completed	100%
<u> </u>	REMERA	3M BROTHERS LTD	27/4/2021	30/4/2021	286,048	Completed	100%
		MWUMVANEZA PHILBERT	3/15/2021	3/16/2021	2,314,128	Completed	100%
		LV extension to Emmanuel TWAGIRIMANA	10/8/2020	11/9/2020	1,335,843	completed	100%
		DND triangle real developers	1/3/2021	5/3/2021	1,757,592	Completed	100%
		Relocation of MV & LV Poles at AZAM	12/1/2020		15,843,083	Ongoing	85%
		Kimironko in Remera branch					

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## MV&LV rehabilitation projects/activities

Hub	Branch	Project description	Start date	End date	Quotation/ ContractCompleted/amount (Rwf)Ongoing	Completed/ Ongoing
KIGALI	REMERA	Elimination of voltage drop at CYARUZINGE	11/2/2021	25/06/2021	79,825,882	100%
		CHINA RAILWAY CONSTRUCTION ENG. GROUP (pole relocation, no materials required)	8/4/2021	13/4/2021	87,833	100%
	Kicukiro	MV line upgrade at KAGASA	26/04/2019	25/08/2020	36,660,361	5%
	Kanombe	Reinforcement of line at Nyarugunga	30/4/2021	4-May	0	100%
		Rehabilitation of LV Line at Busanza/Gashyushya	6/5/2021	6-May	0	100%
		Rehabilitation Nyarugunga/Kibaya	23/04/2021	23/04/2021	1	100%

Hub	Branch	Project description	Start date	End date	Quotation/ Contract amount (Rwf)	Completed/ Ongoing
		Rehabilitaion Nyarugunga/Mukoni	23/04/2021	23/04/2021		100%
		Reinforcement of Line at Kanombe/Busanza	26/04/2021	27/04/2021	0	100%
		Rehabilitation of LV line at Nyakariro/Bihembe	20/02/2021	25/02/2021	0	100%
		Renfoircement of LV Line at Busanza Under RWANCO Appartments	24/02/2021	25/02/2021	0	100%
		Relocation of LV Pole at Kanombe/Rubirizi	15/02/2021	15/02/2021	51,434	100%
		Relocation of LV Pole at Rusororo/Nyagahinga	17/2/2021	17/2/2021	53,452	100%
		Rehabilitation Cabinet Cinq sur Cinq and 15Km	4/12/2020	4/12/2020	0	0
		Relocation Of LV Concrete Pole at Kanombe/Kabeza	11/12/2020	11/12/2020	0	0
		Rehabilitation Nyarugunga	17/12/2020	17/12/2020		100%
		Rehabilitation Kanombe/Rubirizi	18/12/2020	18/12/2020		100%
		Relocation of pole at Kabeza	18/12/2020	18/12/2020	30,414	100%
		Rehabilitation GVA Nyarugunga	22/12/2020	26/12/2020	0	100
		Rehabilitation at Kanome/Kabeza	24/12/2020	24/12/2020	0	100
		Relocation of MV Pole(Masaka/Gako)	4/12/2020	4/12/2020	101,130	100%
		Rehabilitation Of LV Poles(GVA Project)	14/09/2020			98%
		Relocation of Steel pole at Masaka	8/10/2020	8/10/2020	38,413	100%
		Relocation of Pole(HAVUGIMANA ERASTE)	22/10/2020	23/10/2020	53,452	100%
		Relocation Of Pole at ESSA NYARUGUNGA	27/10/2020	28/10/2020	105340	100%

Hub	Branch	Project description	Start date	End date	Quotation/ Contract amount (Rwf)	Completed/ Ongoing
		Rehabilitation MUTUKURA	23/10/2020	24/10/2020	47,626	100%
		MUREHE(REHABILITATION)	3th, August		1	100%
		GASARABA(REHABILITATION)	4th, August	4th, August		100%
		NYARUGUNGA(Re-Location) Of LV Pole	14/08/2020	14/8/2020	48,504	100%
		MASAKA(GATO Edson Line Extension)	11/8/2020	11/8/2020	27,433	100%
		ITUNDA VILLAGE (rehabilitation)	1/9/2020	9/30/2020		100%
		Rubirizi(relocated pole)	01th, September	01th Sept	43,426	100%
		15Km Legacy(reinforcement)	6th, Sept	6th Sept		100%
		Rehabilitation Of LV Poles(GVA Project)	14/09/2020			9%09
		Nyakariro(reinforcement)	6th, Sept	6th Sept		100%
		MUYUMBU(RUGENGAMANZI Bernard Line Extension)	11/8/2020	12/8/2020	32,992	100%
		MASAKA(SHEMA Pacifique Line Extension)	13/8/2020	14/08/2020	36,698	100%
		KIRADIHA	8/12/2020		1	100%
		NYARUGUNGA(Pole Shifting)	8/22/2020	8/24/2020	57,452	100%
		MASAKA(Pole Shifting)	8/21/2020	8/21/2020	98,911	100%
		Relocation of LV Pole(Kabeza)	25/08/2020	27/08/2020		100%
		Relocation of LV Pole(Samuduha)	28/08/2020	28/08/2020		100%
		Relocation of DB at Five to Five/ Nyarugunga	5/2/2021	5/2/2021	0	100

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Hub	Branch	Project description	Start date	End date	Quotation/ Contract amount (Rwf)	Completed/ Ongoing
		Rehabilitation of LV Line at Nyarugunga/Kamashashi/Mulindi	27/02/2021	27/02/2021	0	%0
		Relocation of LV Pole at Kanombe/Kabeza	7/1/2021	7/1/2021	83530	100%
		Reinforcement of Line at Kanombe/Busanza	23/03/2021	24/03/2021	0	0%0
		Rehabilitation of LV Line at Rusororo/19Km	10/3/2021	10-Mar	0	0%0
		Rehabilitation of LV Line at Kabuga/Gahoromani	11/3/2021	11-Mar	0	0%0
		Reinforcement of Line at Nyakariro/Gishore	22/03/2021	22/03/2021	0	0%0
		Rehabilitation of Pole Kanombe/Kabeza	14/1/2021	14/01/2021	0	100%
		Relocation of Pole Rusororo/Kabuga I	15/01/2021	15/01/2021	0	100%
		Relocation of Pole Masaka/Gako	15/01/2021	15/01/2021	0	100%
		Line Reinforcement at Kanombe/Rubirizi (Tfo Karyango)	31/1/2021	31/1/2022	0	100%
		Reinforcement of Line at Nyakariro/Gishore	28/04/2021	28/4/2021	0	100%
		RUHANGA(relocated pole)	5/8/2021	15/8/2020	43,426	100%
		Rehabilitation of LV Line at Nyarugunga/Kamashashi	5/5/2021	5-May	0	100%
		Rehabilitation of LV Line at Kanombe/Kabeza	12/5/2021	5/12/2021	1	100%
	RULINDO	Rehabilitation of Mv line at Buyoga	13/05/2021	15/05/2021	2,283,046	100%
		Rehabilitation of T-Off Rukozo to Kaburanyoni in Rulindo	28/08/2020		22,000,000	100%
		Rehabilitation of MV line Rukozo-Kabonanyoni	28/08/2020	2/10/2020	4,324,679	98%
		Elimination of voltage drop at Nyabyondo	9/4/2021		51,093,011	98%

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Hub	Branch	Project description	Start date	End date	Quotation/ Contract amount (Rwf)	Completed/ Ongoing
	Kamonyi	Mugina - Jenda Reinforcement of MV Concrete poles	19th Feb,2021	19th Feb,2021	52,000	
		Shifting LV line Ruyenzi (Jeanne Munganyinka)	25/08/2020	25/08/2020	17,746	100%
		Relocation of 4 poles Nyagacaca Village	13/8/2019	13/8/2020		100%
		Rehabilitation Mugina Mbati LV line	11/10/2020	11/10/2020	-	100%
		Kamuhanda LV Line	19/10/2020	20/10/2020	0	100%
		Kamuhanda	9/3/2021	17/03/2021	0	
		Kamuhanda (Due to the accident)	14/03/2021	14/03/2021	0	
		Re-erection of Mv pole fallen due to the landslide	29/05/2021		630,550	100%
	JABANA	Rehabilitation of MV line supplying Kabuye sugar work from underground to overhead line	15/06/2021	23/06/2021	12,971,581	100%
CENA	Nyabihu	Demolishing of old T-Off none used linking Kibisabo to Gatindozi in Nyabihu Branch	17/5/2021			31%
	Rutsiro	RELOCATION OF 30kV PYLON DUE TO LAND SLIDING ON KIBUYE FEEDER IN RUTSIRO	20/6/2021		26,300,399	15%
	Gatsibo	Relocation and maintenance on pompage Muhura Transformer	21/6/2021		2,722,500	95%
	Nyaruguru	Demolish MV Line at Nshiri Hydro Power Plant ( Demolishing of MV pylons and removing 630kVA TX)	6/8/2020	22/8/2020		100%
		Demolishing old MV line 6.6kV at Agatobwe MHPP	26/02/2021	15/3/2021		100%
	Burera	Rilocation of Kirambo MV Overheard line affected by landsliding	25/8/2020		19,512,721	25%

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duH	Branch	Project description	Start date	End date	Quotation/ Contract	Completed/
	Rutsiro	Relocation of pylon affected by landsliding at Cyimbiri in Rutsiro	16/11/2020		amount (Rwf) 18,559,822	Ongoing 100%
	Rulindo	Relocation of one H Pole, Transformer and Auto Recloser affected by landsliding in Rulindo	29/9/2020		14,596,898	100%
	Kamonyi	Rehabilitation of LV line Bishenyi	08/09/2020/	15/09/2020	900,000	37%
	Nyamagabe	Relocation of one Tower at Nyamagabe	17/5/2021	11/6/2021		100%
	Gicumbi	Shifting of households via Ngoma MHPP to national grid	20/07/2020	23/07/2020	7,344,442	100%
		Rehabilitation of 30kV MV line supplying Nyamabuye Water treatment plant at Gicumbi	14/1/2019	18/6/2021	14,289,954	36%
SOUTHERN	Muhanga	Rehablitation of LV Line site Kibangu by disconnecting the substandard lines which were connected to the existing LV Line of 5Km of the length.	13/12/2020	15/12/2020		
		Replacement stolen cables 115m 4*25 mm2 at Green House Karama-Ruli	12/01/2020	12/01/2020	345,000	100%
		Relocation of 2 wooden poles mounted in customer plot at Karama Syogwe due to customer complain	12/07/2020	12/08/2020	100,000	100%
		Protecting 6 MV wooden poles damaged(collapsed)in their lower part by using type of feuillard. Location: Karagama,Musongati,MURAMBI&Rukurazo	12/07/2020	12/09/2020	140,000	100%
		Direct intervetion on a 400KVA WASAC Transformer with bad contact on 2 phases secondary side by adding 2 boltons M18 for reinforcement	12/09/2020	12/10/2020	000'09	100%
		Replacing a UG cable 6m 4x35mm2 stolen at cefoca area and adding 2 jonctions boxes M13	12/11/2020	12/11/2020	100,000	100%
		Extension of fill-in Projects processing in EUCL by fixing 4 treated wooden poles AT GIHUMA ZONE	LE24/05/21	1/6/2021	6,410,610	100%
		Extension of fill-in Projects processing in EUCL by fixing 2 treated wooden poles at KINYAMI ZONE	LE15/06/21	Le15/06/21	1,455,058	100%

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Hub	Branch	Project description	Start date	End date	Quotation/ Contract amount (Rwf)	Completed/ Ongoing
		MAPFUNDO-MUBUGA-SHYOGWE	21/8/2020	In progress	524,000	100%
		Makera, Cyeza Gerard RUKEMAMPUNZI	30/08/20	30/8/20	70,000	100%
		RUVUMERA-GAHOGO-NYAMABUYE	19/08/2020	20/08/2020	237,000	100%
		Extension of fill-in Projects processing in EUCL by fixing 29 treated wooden poles	5/17/2021			30%
	- -	Extension of fill-in Projects processing in EUCL by fixing 09 treated wooden poles at RUSOVU CELL OFFICE	6/15/2021	6/23/2021	30,501,962	100%
	RUHANGO	Rehabilitation of LV Line at Byimana Sector	4/7/2020	9/8/2020		
	MUHANGA	Construction transformer stand with 12 cross arms of 2.5 meter for upgrading transformer Karama	9/9/2020	11/9/2020	900,000	100%
	RUHANGO	Re-location wooden poles at Mbuye	09/09/020	09/09/020	36,029.00	2%
	MUHANGA	GIHUMA-KAMAZURU near WTTP WASAC GIHUMA	4/8/2020	4/8/2020	150 000	done 100%
	Nyaruguru	Rehabilitation of LV Line KIYONZA	16/06/2021	16/06/2021	000'009	100%
NORTHERN	Nyabihu	Relocation of Mv poles at Gaharawe t-off	7/10/2020	7/10/2020	1547750	100%
	Ngororero	Rehabilitation Gataba transformer	3/5/2021		11,629,186.90	%06
WESTERN	Rusizi	Replacement of undergroung cable to abc conductor	23/04/2021	23/04/2021		100%
	Nyamasheke	Replacement of aluminium conductors to ABC conductors	24/04/2021	25/04/2021		100%
	Rusizi	LV line Re-location at Nyakabuye	10/12/2020			
	Nyamasheke	Rugale lv line rehabilitation				
		MV line relacation at hanika	12/12/2020			
	RUTSIRO	Relocation of EUCL utilities along the road projects as specified in Lot 2: gakeri-Bitenga-Bwiza-Mungoti			5,910,734	

Hub	Branch	Project description	Start date	End date	End dateQuotation/ ContractCompleted/amount (Rwf)Ongoing	Completed/ Ongoing
	Nyamasheke	Vyamasheke Rehabiltation of LV line at MAHEMBE EP-Gabiro	25/08/2020	26/08/2020	1,114,689	
	KARONGI	KARONGI   Rubengera, Nyamuhebe, Gishyita, Gasayo & Kilinda	2/7/2020	30/7/2020	2,500,000	100%

### Annual Report and Audited Financial Statements **Energy Utility Corporation Limited** For the year ended 30 June 2021

# Annex 5: Energy losses calculation (MWH and %)

	T			G	00.20	00.00	00 00	1.0	10 T.	IC TO		10 M	101	Total	Annual
11em	07-Inc nu		Aug-20	07-100 07-dag	<b>UCI-</b> 20	07-A0N	DZ-300 DZ-30	17-unf	17-17 L CO-21 Mar-21 Apr-21	Mur-21		17-unc 17-ánm	17-unc	2020-2021 Average	Average
Total Energy Generated (Domestic+Import+Offgrid)	ЧWh	77,604.57	78,008.21	MWh 77,604.57 78,008.21 76,097.76 79,727.27	79,727.27	78,713.86	80,636.83	78,403.72	71,842.11	82,580.20	81,858.22	83,971.90	85,209.29	78,713.86 80,636.83 78,403.72 71,842.11 82,580.20 81,858.22 83,971.90 85,209.29 954,653.95 79,554.50	79,554.50
q	ЧМh	77,603.92	78,007.43	MWh 77,603.92 78,007.43 76,097.05 79,726.55	79,726.55	78,712.99	80,635.98	78,402.82	71,841.38	82,579.25	81,857.21	83,970.97	85,208.27	78,712.99         80,635.98         78,402.82         71,841.38         82,579.25         81,857.21         83,970.97         85,208.27         954,643.84         79,553.65	79,553.65
Total Energy Consumed/ Billed   MWh   61,746.94   61,107.42   60,849.51   63,990.13	MWh	61,746.94	61,107.42	60,849.51	63,990.13	•	65,602.40	62,897.28	59,586.25	66,293.87	67,018.06	65,923.43	71,185.34	34,567.94 65,602.40 62,897.28 59,586.25 66,293.87 67,018.06 65,923.43 71,185.34 770,768.56 64,230.71	64,230.71
Total Losses (MWh)	MWh	15,856.98	16,900.01	WWh 15,856.98 16,900.01 15,247.55 15,736.43	15,736.43	14,145.05	15,033.58	15,505.54	12,255.14	16,285.38	14,839.15	18,047.54	14,022.93	14,145.05         15,033.58         12,255.14         16,285.38         14,839.15         18,047.54         14,022.93         183,875.27         15,322.94	15,322.94
Total Losses (%)	% 2	0.43%	21.66%	<b>% 20.43% 21.66% 20.04% 19.74% 17</b> .	19.74%	17.97%	18.64%	19.78%	.97% 18.64% 19.78% 17.06% 19.72% 18.13% 21.49% 16.46%	19.72%	18.13%	21.49%	16.46%		19.26%

Note: The total energy billed 770,768.56 kWh is the sum of 766,606,204.22 kWh commercial bills plus the export counted in terms of energy compensation and Nasho irrigation equivalent to 4,162,359.24 kWh. These data are presented as follow:

Kamanyora	1,703,089.30
Goma	531, 303.00
Mururu II	16,000.00
Nasho solar	1,911,966.96
Total	4,162,359.24