REPUBLIC OF RWANDA

MINISTRY OF INFRASTRUCTURE

ENERGY SECTOR

BACKWARD LOOKING JOINT SECTOR REVIEW REPORT FOR FY 2021/22

November 2022

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Abbreviations	
AFDB	African Development Bank
COD	Commercial Operations Date
EDCL	Energy Development Corporation Limited
EIA	Environment Impact Assessment
EPC	Engineering Procurement and Construction
EPD	Energy Private Developers
EU	European Union
FY	Fiscal Year
GoR	Government of Rwanda
GWh	Gigawatt hour
HPP	Hydro Power Plant
IAEA	International Atomic Energy Agency
ICS	Improved Cook Stoves
JSR	Joint Sector Review
LCPDP	Least Cost Power Development Plan
LPG	Liquefied Petroleum Gas
LV	Low Voltage
MHPP	Micro Hydropower Plant
MINECOFIN	Ministry of Finance and Economic Planning
MININFRA	Ministry of Infrastructure
MV	Medium Voltage
MW	Megawatt
NDC	Nationally Determined Contributions
REG	Rwanda Energy Group
REMA	Rwanda Environment Management Authority
RSB	Rwanda Standards Board
SDG	Sustainable Development Goals

1. INTRODUCTION

Strides have been made in the energy sector with focus on achieving the medium targets as outlined in the NST1 and sector strategic plan as well as long term targets including NDCs and SDG & targets. This backward looking energy joint sector review report takes stoke of the key achievements registered in the energy sector during the period July 2021-June 2022 against the strategic sector objectives as set out in the aforementioned strategies. The report also underscores the challenges faced during implementation including among others the post COVID constraints that led to delay of some of the major energy projects. Given that we are two years away the report also highlights areas that need attention such as low key performing indictors and suggested catch up plans.

1.1. Objectives of the Backward Looking Joint Sector Review

i. To assess progress in achieving sector objectives with focus on 2021/22 targets for: NST1 indicators, selected sector performance indicators and their corresponding policy actions. This will also include discussion on catch up plans for areas lagging behind.

ii. To present and discuss budget execution performance for FY2021/22.

iii. To highlight priority areas for the 2023/24 fiscal year that will inform the planning and budgeting process for institutions in the sector.

iv. To review progress against implementation of recommendations from the last JSR meetings as well as summary of discussion on implementation of 2021/22 Office of the Auditor General (OAG) recommendations.

v. To provide latest implementation status on SDGs indicators already monitored by sectors (Annex 3.1) and to highlight plans for monitoring the additional SDG indicators applicable to Rwanda and currently having clear computation methodologies, but not monitored at the moment using Annex 3.2.

vi. To provide the latest status on the implementation of the Covid-19 Socio-Economic Recovery Plan using Annex 4.

1.2. Methodology

Different sector stakeholder reports have been reviewed and used in the preparation of this backward looking joint sector review report. In this case most of the stakeholders were engaged through technical working groups and a wider sector working group meeting. Through these meetings, participants provided inputs which were incorporated into one final report based on the terms of reference provided by the Ministry of Finance and Economic Planning.

2. PERFORMANCE REPORT 2021/22 ENERGY SECTOR TARGETS AND POLICY ACTIONS

2.1 Sector Performance against NST1 indicators

The two key energy sector indicators under NST1 include: Increased access to electricity and reduced biomass usage for cooking. The government targets to provide universal access to electricity by 2024 and reduce biomass usage in cooking from 83% to 42% respectively. By end June 2022, electricity access has increased from 64.53% to 72% and biomass usage reduced to 77.7% as per EICV V. Though it's evident that the latter target may be hard to achieve, there

are various initiatives that are ongoing to facilitate households to access clean cooking systems including the new project for RBF targeting 500,000 households.

2.2. Sector Performance against other key indicators

2.2.1 Electricity Generation

Installed Capacity

The Government of Rwanda's target is to generate enough electricity to meet demand and maintain at least 15% reserve margin by 2024. Various generation projects are under development to achieve this target. During the financial year 2021/2022, some ongoing projects have contributed to the increase of the installed capacity by 16% from 238.052 MW to 276.068 MW against the planned 345.752 MW. This increment resulted from the commissioning of Hakan Peat power plant (35MW) and Rukarara V HPP(3MW). The failure to reach the planned target was mainly caused by the delayed completion and commissioning of the following power plants; Hakan Peat to Power Plant 35MW additional to the 35 MW that was commissioned, Regional Rusumo Hydro Power Plant (80MW with 26.7MW as Rwanda share), Shema Methane Gas (28MW) out of 56MW.

Table 1: Installed Capacity by Source

Technology	Installed capacity (MW)	%
Hydropower	107.328	38.9
Thermal Power	58.8	21.3
Solar Power	12.05	4.4
Methane Gas	29.79	10.8
Import & Shared	18.1	6.6
Peat Fired PP	50	18.1
Total	276.068	100

As indicated in the table above, hydro continues to dominate the installed capacity mix with 38.9% of the total installed capacity followed by fuel fired (thermal) power plants, methane and solar respectively.

2.2.2 Generation Capacity.

Table 2: Generation Share of different resources in GWh

Details	Hydro	Methane	Thermal	Solar	Peat	Import	Shared	Total
2020-2021	494.4	206.8	92.7	18.1	30.6	29.7	82.3	954.7

2021-2022	461.52	218.60	194.51	17.53	80.90	31.98	64.56	**1,069.58**
Contribution to energy Mix (%)	43.1	20.4	18.2	1.6	7.6	3.0	6.0	

As indicated above, the table shows changes in the electricity generation mix over the two years' periods, energy generated from different sources during the FY 2021/2022 increased from 954.7 GWh to 1,069.58 GWh with hydropower contributing the largest followed by methane, thermal, peat, shared resources, imports and solar respectively. It is also noted that hydro power, methane, solar imports and shared power plants contribution to the energy generation mix decreased compared to the previous year whereas thermal (fuel fired), and peat power plants) increased compared to the previous year 2020/2021.

2.2.3 Progress on other key ongoing generation projects by end June 2022;

- 80MW Rusumo hydro Power Plant (26.6 MW Rwanda share) construction progress reached 93% and is currently estimated at 95% as of end September 2022. The plant is expected to be completed by end March 2023.
- 70 MW Hakan Peat to Power Plant construction completed at 100%. Commissioning of 35MW completed.
- 56 MW Shema Power Lake Kivu Methane gas power plant construction was estimated at 70% by end June 2022. Commissioning is expected to be in phases with 14 MW expected in March 2023 and the remaining 42MW will be commissioned by end May 2023.
- 206 MW Rusizi III hydro power plant; The feasibility studies were approved subject to incorporation of comments from contracting states. Currently, mobilisation of funds and EPC firm is ongoing.
- 43.5MW Nyabarongo hydro power plant; Land acquisition for phase 1 completed while phase 2 was at 10% by end June 2022. On the other hand, project implementation was estimated at 4% with designs completed at 30% and site installation completed.

2.1.4 Other key generation activities implemented:

The Ministry of Infrastructure in collaboration with REG, revised and updated the Least Cost Power Development Plan(LCPDP) in December 2021 and June 2022. The periodic revision is intended to systematically optimize the development of Rwanda generation resources by prioritizing the least cost options to ensure the tariff affordability. The key updates this year included; Re-alignment of CODs of delayed projects, demand and supply mismatch with updated CODs.

2.3 Access to electricity

2.3.1 Grid Electricity Access

During the FY 2021/2022, 127,742 new customers were connected to the national grid against the planned 146,238 connections. The new connections include 463 productive use areas including; health facilities, schools, early child hood development centers, mines, coffee washing stations, industries/factories among others. This brings the total number of

connections to the grid from 1,270,9651 reported end June 2021 to 1,398,707 connections as of end June 2022 equivalent to 50% of the total connections. Compared to the 2020/21 fiscal year performance, there was a decline in new grid connections by 51,142 connections from 178,884 connections. This is largely attributed to the fact that, the Electricity Access Roll Out programme phased out during the FY 2021/22 and the new Rwanda Universal Energy Access Programme had just started with most of electrification projects still under procurement process.

2.2.2 Off grid Electricity Access

Off grid connections increased by 116,712 households against the planned 60,000 connections bring the total connections through off grid to 593,897 households equivalent to 22% by end June 2022 from 477,184 households equivalent to 17.61%. Compared with the performance of the previous year 2020/21, off grid connection performance increased by 44,511 households. This increase is attributed to the contribution of the subsidy programmer under the Renewable Energy Fund that addressed the affordability issue especially among low income household.

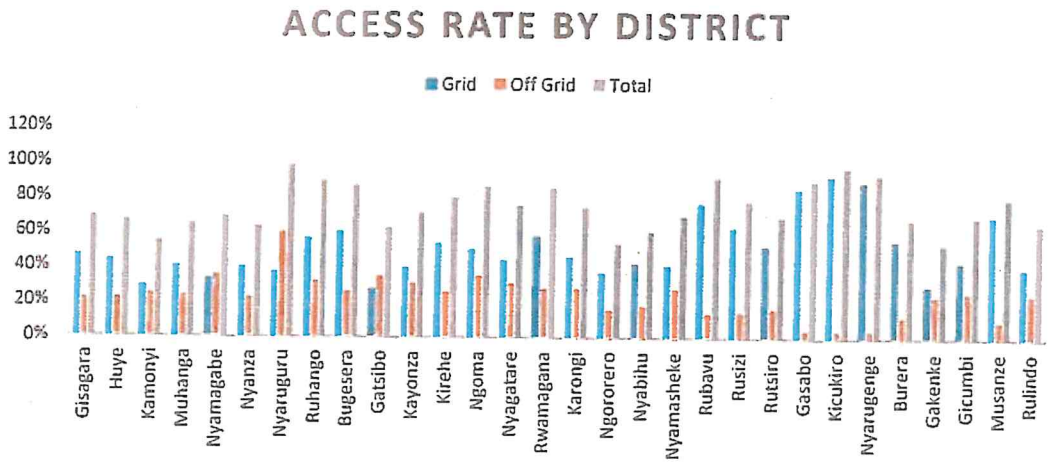


Figure 1 Electricity Access by District

In general, by end June 2022, the electricity access rate countrywide had increased to 72% from 64.53%. The Government has committed to meet universal access to electricity, with an estimated 3.7 million households to be connected by the year 2024. To achieve this ambitious target, concerted efforts will be targeted towards electrifying districts which are lagging behind such as Kamonyi, Gatsibo, Ngororero, Nyabihu, Gakenke. In addition, due to resource constraints to electrify over 70% of households to the grid, standalone solar systems and mini grids will be deployed as a temporary solution in some areas demarcated as grid as per national electrification plan.

[1] RURA Annual Report 2021/2022

[2] REG Annual Report 2021/22

2.3. Electricity Transmission and Distribution

Extension and upgrade of the transmission and distribution infrastructures is paramount in the evacuation of power from the various sources, facilitating power trade within the region through interconnection infrastructure, accelerating end user connections, and improvement supply and network

2.3.1 Transmission

The transmission network increased by 28.75km against the planned 216.3km. This brings the total transmission network from 944.3km recorded end June 2021 to 973.14km by end June 2022. The increment is a s result of completion of the 28.75 of 110kV Mukungwa-Nyabihu line. The delays to complete 220 Rusumo-Bugesera-Shango TL and 220kv TL: Rwanda - Burundi TL has been cited as the reasons of not achieving the 216.3Km target.

Key ongoing transmission lines projects include the following;

- 220kV Single circuit TL: Rusumo – Bugesera- Shango and related substations -To evacuate power from Rusumo regional HPP in the Eastern Part of Rwanda. Overall progress is estimated at 95.6% with substation component completed 100% and transmission lines at 91.2%. Project is expected to be completed this FY 2022/23.

- 220kV TL: Rwanda - Burundi TL- To connect Rwanda with Burundi, for future regional power trade. Overall project progress was 95% with transmission lines at 93% and associated substation at 98.6%. The project is expected to be completed this FY 2022/23.

- Construction of three 220kV Rwanda-DRC power interconnection Substations (Rubavu, Bwishyura and Kibuye); Overall progress is estimated at 12% with Rubavu substation at 22.17%, Bwishyura at 0.1% and Kibuye substations works are expected to begin this financial year.

- 79.96km Bwishyura- Kigoma- Rwabusoro 220KV Line and Shema (Symbion) substations. The project that will evacuate power from Shema Kivu Lake Power Plant has four(4) components including; construction of 4.5 Km line linking Shema Power Plant to the existing Rwanda-DRC line is 95% complete; construction of 11/110 kV SPLK Substation to temporarily evacuate 14MW is at 89%; construction of Air Insulated Substation(AIS) to evacuate 56MW at design stage; construction of 75.55 Km of 220 kV transmission line Bwishyura-Kigoma-Rwabusoro, preliminary routing completed and Extension of Kigoma substation. Overall progress stands at 35.2%.

2.3.2 Distribution

During the fiscal year 2021/2022 over 64 distribution lines were energised country wide. These included; 537.287km of medium voltage,1123.181km of low voltage and 330 transformers installed. This resulted into the expansion of the low and medium voltage network from the 17,389.6 km to 18,512.78km and from 9944.3km to 10481.59km respectively.

2.4. Street lighting

In line with the government's target to install streetlights along all national and major roads, a 631.85Km street lighting project to light existing roads was initiated in 2020. So far, 83.56Km of

streetlight sections of Maranyundo-Nemba, Musanze-Kinigi, Kigali-Kayonza and Golf course at Nyarutarama roads were completed. Ongoing sections of streetlight installations at different stages include; 65km Kigali-Gatuna at 80% with all 1,840 poles erected and lumps being installed. Kigali-Huye-Akanyaru at 93%, Huye-Kitabi, 50Km Rusizi-Ruhwa, 45Km Nyamasheke-Rusizi. The overall project progress is at 65.6% as of June 2022 from 35% recorded end June 2022.

2.5. Sustainable use of Biomass and Other Clean Cooking Energy solutions.

EICV V data indicate that 77.7 of the population still use traditional cooking methods such as three stone stoves and firewood. The government targets to halve the households using traditional methods to 42% by 2024. In this regard a number of initiatives are being implemented including;

a) **Dissemination of improved cooking stoves**

In the period between July 2021-June 2022, 184,330, cook stoves were distributed through various initiatives against the planned 128,010 ICS, in the same regard, 6,022 were inspected for quality insurance.

Implementation of the result based finance clean cooking program has continued in partnership with BRD and EDCL funded by the world Bank. The project is targeting to provide over 500,000 households with clean cooking stoves by 2050. By September 2022, over 6,000 improved cook stoves have been distributed through the programme that started late in 2021.In order to accelerate these initiatives, the government through EDCL in partnership with private sector conducted awareness campaigns across the country through electronic and print media.

To facilitate clean cooking market development, the government in partnership with GIZ-RECIC project is conducting a market assessment on the clean cooking value chain. In addition, the project also supported capacity building of the Rwanda Standards Board to operationalize the clean cooking stoves test laboratory.

b) **Promotion of biogas usage**

In the same year, Inspection was conducted on 541 biogas plants and technical assistance by REG was provided on rehabilitation of 132 defected plants. To improve biogas sector development, the government is in the final stages of conducting the evaluation of the national biogas programmer that was completed in 2016. The draft report was shared with stakeholders and final report expected before end 2022/23.

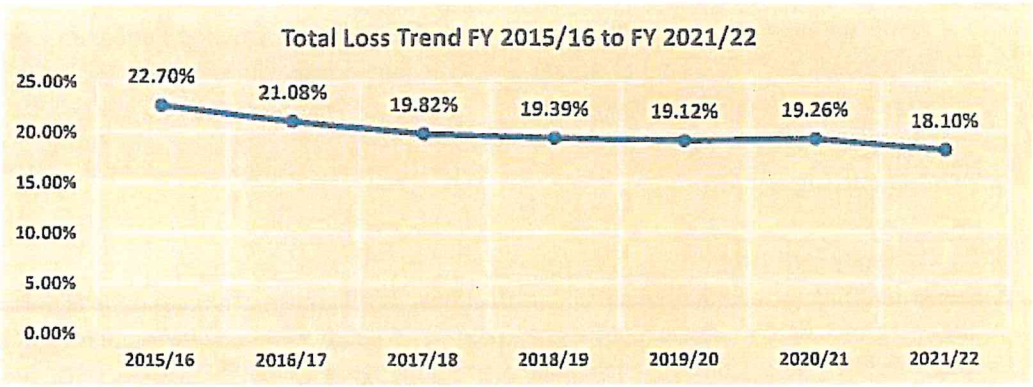
c) **Implementation of clean cooking in institutions**

In partnership with development partners two programs have been secured to install clean cooking equipment in schools across the country. The project funded by European Union is targeting over 284 schools and is expected to be completed by end January 2023. In addition, the government has also secured funding from Danish government to support more schools to acquire clean cooking equipment and the project is expected to start this FY 2022/23.

2.6. Energy efficiency and increase security of supply

2.6.1. Electricity Loss Reduction and network performance

The average total losses (Technical and non-technical losses) for this FY 2021/2022 were evaluated to 18.1 % compared to 19.26 % of the previous year 202/2021 as indicated in the figure below.



Source: REG Annual report 2021/2022

Figure 3: Trend of total energy losses

The performance of distribution network in terms of interruption number and duration did not improve compared to the previous year as given that the System Average Interruption Duration Index (SAIDI) registered 18.59[3] hours compared to 18 hours in the previous year and the average number of interruptions that a customer experienced (SAIFI) was 45.67 times compared to 44.4 in the previous year.

The increase in the number and frequency of interruptions is largely attributed to the planned outages as result of commissioning works for new HV lines and substations during the reporting period.

Table 3: Network Performance

DESCRIPTION	UNITS	BASELINE (July 20- June 21)	July 2021/2022
SAIDI	Hours/year	18	18.59
SAIFI	TIMES/year	44.4	45.67

Source: REG Annual report

Key network improvement projects as of end June 2022 include;

- Kigali Distribution Network Strengthening: construction of 8 cabins and 37km of distribution network completed and energized
- Improvement of Substations and Distribution network (JICA-III, Upgrade of Gasogi s/s.) overall progress was estimated at 98% by end June 2021. The project has been completed both substation and 20km of distribution lines
- Eastern Province Distribution Network upgraded from single phase to three phase: the overall project is estimated at 96.15% with 182 Km and 124 transformers installed to upgrade from single to three phase.

2.6.2. Petroleum storage Reserves:

Rwanda plans to increase Petroleum strategic reserves to cover three months' supply by 2024. For 2020/21 fiscal year, the Petroleum strategic reserves stood at 112 million liters of oil storage capacity against 198 million litres targeted in 2024. Furthermore, additional 6million liters Jet A1 tank is being constructed and completion is expected by October 2022. It is also

[3] REG Annual report 2021/2022

worth noting that, in order to increase strategic stock for Liquefied Petroleum Gas (LPG), development of 17,100 m3 of storage facility in partnership with private sector is ongoing and expected to be completed by June 2024.

2.7 Cross-cutting Areas

2.7.1 Capacity building

Capacity building for both individual and instructional development continues to be at the forefront of the energy sector. During the reporting period over 153 staff were recruited to reinforce the REG and its subsidiary to perform to its mandate. During the same period; 297 EUCL staff, 195 EDCL staff and 36 REG Holding staff were trained in various fields. In order to ensure sustainability, REG has established a training center. The center is expected to provide training to new junior staff and technical and professional trainings for in-house staff which will in turn reduce the burden of overdependence on foreign trainings.

The Ministry of infrastructure in partnership with EU is implementing a capacity building programme to implement the functional review action plan of the energy directorate. The project is aimed at improving the capacity of the directorate to implement its mandate especially development of policy, strategy development and required studies. Over 15 energy sector selected staff were also trained in energy modelling and statistics under the partnership between GoR and the international Energy Agency.

To improve the performance in the clean cooking sub sector and implementation of the result based financing project, GIZ Endev and World Bank have reinforced the capacity of the RSB laboratory by training staff in clean cooking testing. In addition, expert has been availed to facilitate clean cooking market development.

2.7.2 Environment and Gender

Environment.

The Government of Rwanda targets to reduce the number of households using tradition cooking technologies to 42%. In this regard, projects under the energy sector are being implemented to accelerate access to clean cooking solutions including; the result based financing clean cooking project implemented by EDCL and BRD, support clean cooking solutions in schools funded by EU. In addition, awareness campaigns have been conducted countrywide to promote use clean and efficient. In return, these initiatives are expected to reduce pressure on natural forests

Gender:

Gender is another cross-cutting issue which is always considered during the implementation of government and donor funded projects. All projects under implementation are encouraged to consider women in the recruitment of workers. A considerable number of women have access to jobs and incomes contributing to the welfare of the entire family.

The sector in partnership with USAID Power Africa and Women in Rwandan Energy (WIRE) are implementing various initiatives to promote women participation in the energy sector.

3. KEY SECTOR CHALLENGES IN IMPLEMENTING NST1 AND WAY FORWARD

The energy sector has continued to record positive progress in terms of achieving sector targets as per NST1 and ESSP, however, the areas highlighted below are still lagging behind and there is need to strategize on how to fast track them in order to meet their targets before 2024.

1. **Over 77.7% of the national population still rely on traditional and inefficient cooking technologies.** Results from the latest NISR household survey (EICV V) indicated that 77.7% of the populations still depend on firewood as a source of fuel for cooking. This has adverse effects both on the health of the population, environmental degradation as well as financial and economic challenges to the community. This has been due to lack of adequate investment in the sub-sector. As mentioned above, the government has mobilized resources to be invested in this area on a result based framework. There is also a need to improve on clean cooking sector coordination.
2. **Insufficient LPG strategic storage reserves and distribution points.** The figures from the RURA annual reports and NISR EICV reports indicates increased demand and use of LPG over the last 5 years. However, Rwanda being a net importer of LPG products, it continues to face price fluctuation challenges due to changes in price of LPG products on the world market. Thus the lack of enough storage facilities exposes the country to these price fluctuation risks. The GoR has partnered with private sector (Societe Petroliere ltd) to construct 17,100m3 Facility for LPG storage with construction expected to start this FY 2022/23 and also encourage other private operators to construct more storage facilities. In addition, there is an ongoing going project to extract methane gas and process it for industrial and household use.

4. BUDGET EXECUTION FOR THE FISCAL YEAR 2021/2022

The budget allocated to the energy sector totaled to 237.8Bn(frw). During the last financial year, the development budget constituted 82.24% while operational expenses accounted for the remaining 17.76% of the total budget. In addition, domestic resources accounted for 45% while 55% accounted for resources from external funding including both grant and loans.

By end of the financial year June 2022, a total of 190.32Bn (Frw) equivalent to 80% of the allocated budget had been committed. Domestic finance performed better than external finance. This was mainly due to delays in execution of projects financed externally.

Table 4: Budget Execution

№	Program/Sub Program	2021/22 Revised budget +additional funding	Budget execution to-date	% Execution
Recurrent				
1	Administrative And Support Services	17.53	17.53	100%
Development				
1	Electricity Generation	8.59	8.59	100%

2	Electricity Transmission and Distribution	47.3	47.3	100%
3	Energy Efficiency and Supply Security	15.3	15.3	100%
Total GoR		**88.72**	**88.72**	**100%**
Funds/Development				
Total External Funds		**149**	**101.6**	**68%**
Grand Total		**237.72**	**190.32**	**80%**

5. PRIORITY AREAS FOR THE FISCAL YEAR 2023/24

The key priority areas to be considered during planning and budgeting for the 2023/24 Fiscal Year will be:

I. Scale up electricity access through both grid and off grid focusing mainly on districts with low access rates.

II. Implementation of on-going generation projects: Committed generation projects using hydropower, methane and other sources will be monitored for timely implementation

III. Promote the use of clean cooking solutions to ensure households transit from using traditional to cleaner cooking technologies through implementation clean cooking result based financing project and other initiatives

IV. National grid network strengthening and expansion: The government will also focus on network upgrade initiatives, transmission system expansion and protection to reduce losses.

V. Street Lighting: Continue with the installation of streetlights on 631.85km of existing major national and urban roads.

6. UPDATE ON THE PREVIOUS JSR RECOMMENDATIONS AND OAG RECOMMENDATIONS

6.1: Previous Joint Sector Review Recommendations;

In July 2021, the Ministry of Infrastructure organized the energy sector working group meeting that discussed the FY 2021/22 Forward Looking Joint Sector Review report. The meeting recommended that;

- EUCL and RDB to resolve the issue of Independent Power Producers who invest in studies for development of power plants and mini grids and are not allowed to advance to the next stage. The Issues are being resolved on case by case basis.
- Organize meeting with EPD to provide clarity on existing off grid demarcated areas to be connected. The meeting was organized and the revised National Electrification Plan was presented and published.

6.2 Implementation of 2020/21 OAG Recommendations:

Below is the summary of implementation status on OAG recommendation for REG, EUCL, EDCL and 7 projects implemented under EDCL

Table 5: Implementation Status of Auditor General's resolutions for FY 20/21

SN.	REG		EUCL		EDCL		EDCL Projects (6 projects)	
Audit Recommendations	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Implemented	8	73%	28	54%	32	51%	23	47%
In Progress	3	27%	21	40%	23	37%	17	35%
Not yet implemented	0	0%	3	6%	8	13%	9	18%
TOTAL	11		52		63		49	

Source: REG Audit reports

There has been improvement in the overall financial management and compliance across REG, its subsidiaries (EDCL &EUCL) and the projects implemented under EDCL. In the same regard, the implementation status as indicated in the above table indicate that on average 56% of the total recommendations have been implemented whereas 35% are partially implemented and 9% are yet to be implemented.

Among the issues highlighted in the OAG report include; recurring expropriation claims on electricity infrastructure projects infrastructure, delays on payment of invoices from suppliers and contractors of some projects due to slow contractors, delayed procurement of some contracts due to appeals and lengthy approvals especially on donor-funded projects and recurring expropriation claims.

7. UPDATES ON SECTOR ANALYTICAL STUDIES

During the FY 2021/22 various sector documents i.e. laws, policies, strategies and studies were elaborated and approved while others are still under development and these include;

- ***Update The Energy Policy of 2015***: By end June 2022, The Ministry had completed the exercise of reviewing the energy policy. The draft has been submitted for further approval processes. The next phase will be to disseminate the policy for implementation for the different stakeholder.
- ***Periodic update of the Least Cost Power Development Plans***: The GoR through Rwanda Energy Group finalized the update of the Generation Least Cost Power development plans as well for transmission and Distribution plans in June 2022.
- ***Evaluation of the Least Cost Power Development Planning process***: The evaluation exercise was completed and the findings will be discussed in the TWG meeting
- ***Evaluation of National Biogas Programme***: The evaluation exercise was completed and draft report is under review by the Ministry.
- ***Conducted Multi-Tier Framework Survey in partnership with the world bank***: The preliminary findings have been shared by the consultant and the final draft report is expected before end June 2023.

- *Energy Efficiency Potential assessment for Rwanda*: the review process was conducted and recommendations have been shared with the ministry and different stakeholders

8. IMPLEMENTATION STATUS OF SDG 7:

The Sustainable Development Goal 7(SDG7) aims at ensuring access to affordable, reliable, sustainable and modern energy for all by the year 2030. The table below indicates progress on implementation of indicators currently monitored by Rwanda under Goal 7:

Table 4.1 Implementation Status of SDG 7.

SDGI	Indicators	Baseline value		Progress value	Progress year	Data Source
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all						
7.1.1	Proportion of population with access to electricity	27%	2016	72%	2021/22	Admin report (MININFRA)
7.1.2	Proportion of population with primary reliance on clean fuels and technology	30.4%	2016-17	30.4%	2016/17	Multi-Tier Framework Survey (MININFRA)
7.2.1	Renewable energy share in the total final energy consumption			50.7% (Proxy: Renewable energy share in the total final electricity generation)	2021/22	Admin Report (MININFRA)
7.3.1:	Energy intensity measured in terms of primary energy and GDP (megajules/USD)	3.01	2016	3.22	2020	REMA , NISR, BNR reports

9. Implementation Status of the Covid-19 Socio-Economic Recovery Plan

In may 2020, the Government of Rwanda published an Economic Recovery Plan (ERP), with interventions to mitigate the social and economic impact of COVID-). The plan aimed at supporting businesses in the sectors hit hardest by the pandemic, so that they can survive, resume work, production and safeguard employment, expand domestic production during the COVID-19 pandemic (e.g., essential goods), and in the post-recovery. Energy was expected to play an important role as a catalyst in most of the sectors in the economy including the

manufacturing and construction sectors. In this case the government a number of projects under the energy sector to support economic recovery. These include; construction of 194 km of high voltage lines, 2,974 Km of Medium Voltage and low voltage lines including upgrade of 275 Km of the Distribution network, construction of 5 substations, connection of 350,000 households to the grid and 100,000 households through off grid systems as well as adding 108MW to the total generation installed capacity. By end June2022, the aforementioned projects have been completed at different stages and over 120Bn frw has been spent on projects on these projects excluding generation projects developed by independent power producers. In addition, they also provided employment to a sizable number of Rwandan's which increased incomes to their respective households and inferentially stimulating economic growth. By end June 2022, Please refer to **Annex 4** for details.

In conclusion, the energy sector continued to perform well during the reporting period 2021/22 despite the various challenges as highlighted in the above report. In the subsequent years of implementation focus will be put more on areas that are still lagging behind in terms of implementing the objectives of the national strategy for transformation.

Signed

Chair of the SWG

ABIMANA Fidèle
Permanent Secretary

Co- Chair of the SWG

Aissa TOURE SARR
Country Manager AfDB (Rwanda)