

REPUBLIC OF RWANDA



MINISTRY OF INFRASTRUCTURE

ENERGY SECTOR

BACKWARD LOOKING JOINT SECTOR REVIEW REPORT FOR FY 2020/21

October 2021

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I. List of abbreviations

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 Power 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
REG	Rwanda Energy Group
REMA	Rwanda Environment Management Authority
RSB	Rwanda Standards Board
RWB	Rwanda Water Resources Board

1. INTRODUCTION

The Backward Looking Energy Joint Sector Review report highlights the key energy sector achievements registered in the fiscal year 2020/2021 against the strategic sector objectives of; scaling up electricity generation to meet demand, universal access to quality, affordable and reliable electricity as well as enhancing use of efficient cooking technologies and alternative fuels. To achieve this, the sector plans developed are informed by medium and long-term projections and analysis of electricity supply and demand, engagements in policy dialogue to ensure ownership, accountability and transparency of the NST-1 implementation and monitoring process.

During the financial year 2020/21, despite the challenges resulting from the sustained COVID Pandemic, the GoR has continued to implement energy programs and projects aimed at delivering universal access to electricity by 2024.

1.1. Objectives of the Backward Looking Joint Sector Review.

The backward looking 2020/21 Joint Sector Review has the following main objectives:

- i. To assess progress in achieving sector objectives with focus on 2020/21 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 FY2020/21.
- iii. To highlight priority areas for the 2022/23 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 2020/21 Office of the Auditor General (OAG) recommendations.
- v. To provide latest implementation status on SDGs indicators already monitored by sectors 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.

1.2. Methodology.

A consultative approach coupled with review of different stakeholder's performance reports, were used in the preparation of this backward looking Joint Sector Review report. In this case most of the stakeholders are engaged through technical working groups and a wider sector working group meeting. Through these meetings, participants provide inputs which are incorporated into one final report based on the terms of reference provided by the Ministry of Finance and Economic Planning.

2. PERFORMANCE REPORT 2020/21 ENERGY SECTOR TARGETS AND POLICY ACTIONS

This section highlights progress and the performance against the implementation of 2020/21 sector priorities, key sector policy actions and targets as detailed below;

2.1. Electricity Generation.

2.1.1 Installed capacity

During the financial year 2020/2021, the total installed capacity increased by 9.95MW from 228.102 MW to 238.052MW¹ against the planned 307.58MW. The registered increase resulted from the upgrade of Nyirabuhombohombombo Micro hydropower plant from 0.5 MW to 0.65 MW (addition of 0.15 MW), and the commissioning of Giciye III (9.8 MW). The underperformance in generation is related to the delays in completion and commissioning of 80MW Hakan peat to Power Plant (by reporting period, construction has been completed at 100% and commissioning is ongoing) and 3MW Rukarara V & Mushishito Phase III that were affected by the COVID 19 pandemic.

Table 1: Installed Capacity by Source

Technology	Installed capacity (MW)	%
Hydropower	104.628	44
Thermal Power	58.8	25
Solar Power	12.05	5
Methane Gas	29.79	12
Import & Shared	18.1	8
Peat Fired PP	15	6
Total	238.052	100

The **238.052MW**, installed generation capacity is dominated by hydro power with a 44% followed by thermal at 25% and 12% by Methane Gas with the remaining 19% distributed among Solar, Peat fired Power Plant, Imports and shared resources as shown in the above table.

2.1.2 Generation Capacity.

During the FY 2020/21 the total energy generated amounted to 954.7 GWh an increase of 82.1GWh from 872.6 GWh generated the previous year. This generation mix is characterized by an increase in hydro power with the largest share contributing over 51.8% from 44.4%, peat increased from 2.2% to 3.2%, while energy from regional shared plants increased from 7.9% to 8.6%. During the same period there was a reduction in the share of electricity generated from thermal power plants in the energy mix from 15.6% to 9.7%, methane gas

¹ RURA Annual Report 2020/21

reduced from 24.5% to 21.7% solar power reduced from 2% to 1.9% and imports from 3.7% to 3.1% respectively.

Table 2: Generation Share of different resources in GWh

Details	Hydro	Methane	Thermal	Solar	Peat	Import	Shared	Total
2019-2020	387.0	213.6	135.9	17.7	19.0	31.95	69.2	872.6
2020-2021	494.4	206.8	92.7	18.1	30.6	29.7	82.3	954.7
Contribution to energy Mix (%)	51.8%	21.7%	9.7%	1.9%	3.2%	3.1%	8.6%	100.0%

As indicated in the above table 1&2, the share of renewable resources in electricity generation increased to 62.3% from 53.9% recorded in the previous fiscal year

2.1.3 Progress on other key ongoing generation projects by end June 2021;

- ◆ 80MW Rusumo hydro Power Plant (26.6 MW Rwanda share) construction progress reached 78% and is currently estimated at 84% as of end September 2021
- ◆ 80 MW Hakan Peat to Power Plant construction completed at 100%. Testing and commissioning is ongoing.
- ◆ 56 MW Symbion Methane gas power plant construction was estimated at 15% by end June 2021. Currently progress on completion of 14MW of phase one (28MW) is at 90%.
- ◆ 206 MW Rusizi III hydro power plant; Review of geoscientific studies and site selection completed. Currently, mobilisation of EPC firm is ongoing.
- ◆ 43.5MW Nyabarongo hydro power plant; Asset valuation completed at 92% and procurement contract for supervision firm has been completed, civil works expected to begin this financial year.
- ◆ 3MW Rukarara V & Mushishito Phase III: Currently, construction of the plant is estimated at 80% progress. Works have also resumed and expected to be completed this FY 2020/21.

2.1.4 Other key generation activities implemented:

The Government of Rwanda through REG, revised and updated the Least Cost Power Development Plan(LCPDP) in December 2020 and June 2021. The continued revision is intended to systematically develop Rwanda generation resources by prioritizing the least cost options to ensure that the tariff affordability objectives are optimized. The key updates this year included; Re-alignment of CODs of delayed projects, least-cost addition of KP1/Shema II Power Company, demand and supply mismatch with updated CODs.

2.2 Access to electricity

2.2.1 Grid Electricity Access

Significant efforts have been made to reach universal access to electricity by 2024. During the FY 2020/21, a total of 178,884² new customers were connected to the National grid against the planned 118,657. This brought the cumulative number of customers connected to the grid from 1,092,081 to 1,270,965 equivalent to 46.92%.³ In addition, 1,110 productive users were connected to electricity against the planned 260 productive users.

2.2.2 Off grid Electricity Access

During the same period, the off grid connections registered an increase resulting from the existing GOR partnership with other stakeholders mainly private sector who connected a total of 72,202⁴ households against the planned 50,000 bringing the cumulative total to 477,184 Households from 404,982, equivalent to an access rate of 17.61% from 15.1% as of June 2020.

The FY 2020/21 results as highlighted above are consistent with the subsector performance in the previous three years where grid electricity access has been growing on average between 6-7% growth rate, whereas off grid performance has only been at 2%. This indicates that, there is need to rethink the off grid strategy being employed if the 48% target of off grid are to be achieved by 2024.

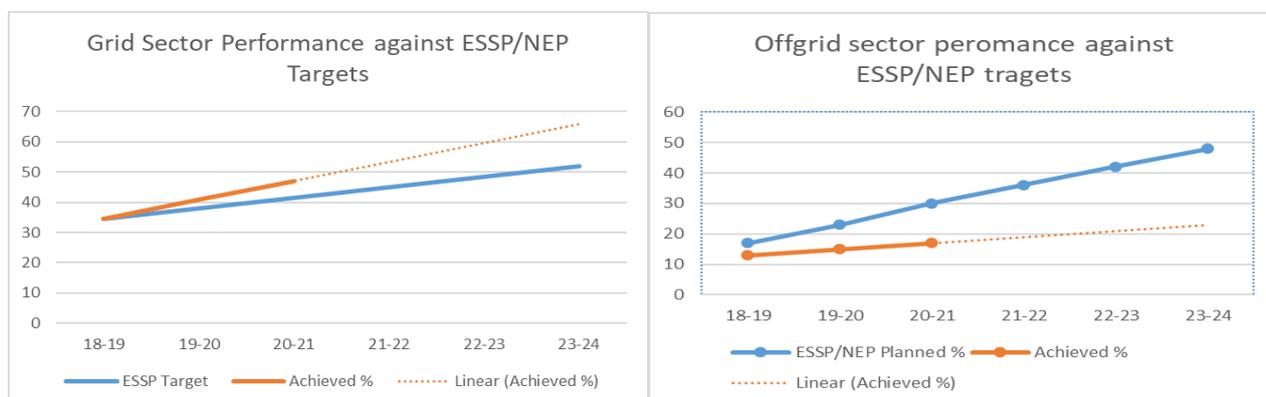


Figure 2.2 Grid vs Off Grid Performance

2.3. Electricity Transmission and Distribution

The Government of Rwanda has continued to prioritize expansion and upgrade of electricity transmission and distribution infrastructure necessary to evacuate power from the different power plants under construction, improving supply and network reliability as well as accelerating electricity access to areas that are not served.

² RURA Annual Report 2020/21

³ Based on 2,709,000 households reported by the NISR (EICV, 5)

⁴ REG Annual Report 2020/21

2.3.1 Transmission.

By end June 2021, the total transmission network was at 944.39 km (both 110kV and 220kV) from 1,285.62km recorded in June 2020. During the same period 5 substations of Mamba, Rwabusoro, Bugesera, Rubavu and Camp Belgie were commissioned bringing the total number of main substations in the network to 37. The length of transmission lines stock was reduced due to the correction of different errors found in the previous reported list of transmission lines, whereby some Lines were duplicated and others had the reduced length in the system (GIS).

Key ongoing transmissions 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 90%.
- 110kv/30kv TL: Mukungwa – Nyabihu and related substations -To boost power supply in the Northern province, including the planned industrial park in Musanze. By end June 2021, the overall progress for the 23km transmission line was estimated at 83% whereas the associated substations of Rubavu and Camp Belge were completed and energized. Nyabihu substation construction progress was at 99% and will be completed in FY 2021/22.
- 220kv TL: Rwanda - Burundi TL-To connect Rwanda with Burundi, for future regional power trade. Overall project progress was at 93%, and the project expected to be completed in 2021/22.
- 220kV Rwanda-DRC power interconnection Substations (Rubavu, Bwishyura and Kibuye) construction; supervision consultant hired, contractor recruitment ongoing. Works expected to start this fiscal year.

2.3.2 Distribution

The distribution network was extended with the construction of 671.48 Km of MV and 1,214.3 km of LV distribution lines across the country against the planned 603.92 km MV and 1,835.18km of LV respectively. The distribution network expansion has resulted in the increase in the total coverage of low and medium voltage lines from 16,108.93 km to 17,389.6 km and from 9,205.8 km to 9,944.3 km, respectively.

In order to improve planning of transmission and distribution network, the Transmission and Distribution Network Development Plans were revised and updated in June 2021.

2.4. Street lighting

The GoR undertook a project to install streetlights on 631.85km along the national and main roads across the country. By end June 2021, the project was estimated at 35% with 37.6Km of Maranyundo-Mayange- Gako Nemba section completed and 5.8 km Nyarutarama Golf Club

Perimeter completed. Currently, installation of street lights is ongoing on 112km of roads; Kigali –Kayonza (34 Km), Kigali-Gatuna (65 Km) and Musanze-Kinigi (13.6 Km).

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

As per the latest EICV 6 data, 77.7 % of Rwandan Households use firewood for cooking. During the FY 2020/21, over 302,819⁵ Improved cook stoves were disseminated across the country in partnership with different private sector and stakeholders .

No	Company/Project	Total
1	Biomasters	322
2	REPCAW	49
3	Indakemwa	102
4	AJDR	44
5	DELAGUA	268,289
6	FONERWA	2,200
7	REMA Green Amayaga	11,000
8	Muhazi Catchment RWB	2,501
9	Sebeya Catchment RWB	2,814
10	Secoko Catchment RWB	1,868
11	REDO Kirehe	8,171
12	REDO Rusizi	4,000
13	Safer Rwanda	909
14	REMA NDF	550
	Total	302,819

In the same year, Inspection was conducted on 541 biogas plants and technical assistance by REG was provided on rehabilitation of 132 defected plants. In addition, 26 awareness campaigns were conducted across the country.

In order to accelerate the penetration of use of improved cook stoves, the Government of Rwanda mobilized funds to promote clean cooking in Rwanda. The 5-year project to be implemented through BRD and EDCL is a result based framework facility that provide subsidies targeting vulnerable households to enable them access clean cooking solutions.

Use of Liquefied Petroleum Gas.

The GoR with support of KfW funded the development of LPG Master Plan for Rwanda which was elaborated by consultants from Global LPG Partnership (GLPG). The Master plan provides a blue print to accelerate LPG usage penetration.

2.6. Energy efficiency and increase security of supply

2.6.1. Petroleum storage Reserves:

The national petroleum storage reserves continue to stand at 111.2 -Million-liters capacity and they are operated partly in partnership with private sector. During the period starting July

⁵ REG Annual report 2020/21 based on numbers reported from private companies and partner projects

2020, in partnership with the private sector construction of an additional 6 Million Litre storage facility for JAT 1 fuel storage was started and is expected to be completed in the FY 2021/22.

In addition, 79% of the total expropriation for the Rusororo strategic petroleum storage reserves buffer zone has been completed against the targeted 95 PAPs. Compensation of the remaining PAPs are expected to be completed in the FY 2021/22. The buffer zone is expected to improve security of the population surrounding the storage facility.

2.6.2. Electricity Loss Reduction:

The total network losses both technical and non-technical increased from 19.1% of the previous year to 19.26%⁶ against the targeted 18% indicating an increase of 0.16% from the losses registered last year.

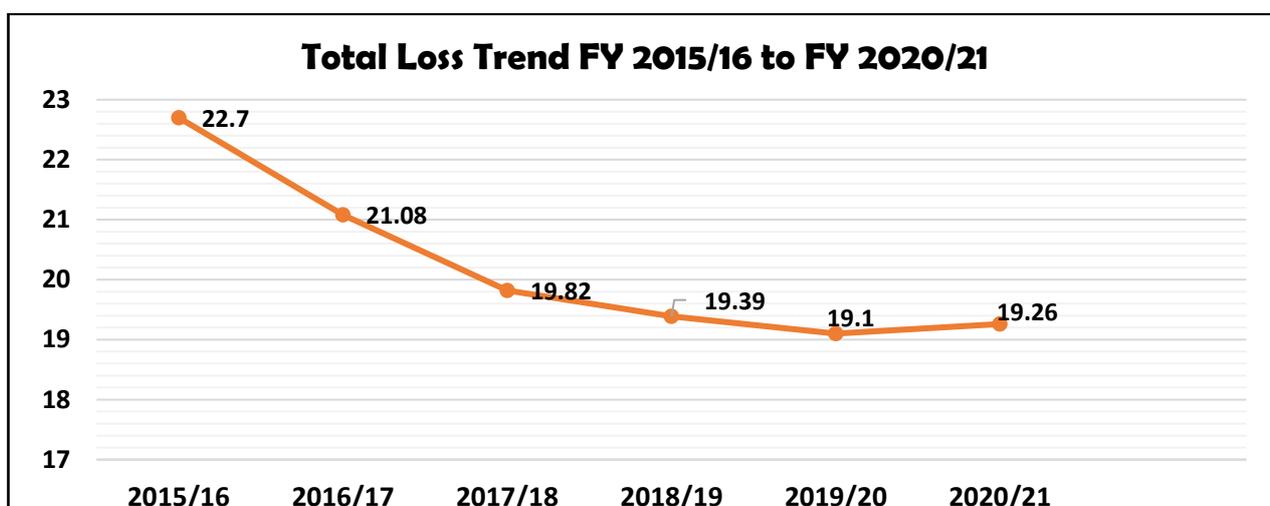


Figure 3: Trend of total energy losses

Power system performance and reliability slightly reduced compared to the previous year with the System Average Interruption Duration Index (SAIDI) increasing from 17.2 hours per year to 18.27 hours per year and the average number of interruptions that a customer experienced (SAIFI) increased from 39 times per year to 44 times per year.

DESCRIPTION	UNITS	BASELINE (July 19- June 20)	ACH' July 20 - June 21
SAIDI	Hours/year	17.2	18.2
SAIFI	TIMES/year	39	44

Key network improvement projects as of end June 2021 include;

- ❖ Kigali Distribution Network Strengthening: construction of 8 cabins completed at 80%
- ❖ Upgrading Rubavu distribution network from 6.6kV to 30kV completed

⁶ RURA annual report 2020/21

⁷ REG Annual Report 2020/21

- ❖ Grid strengthening in Rwamagana, Kayonza & Ngoma districts (8.4km of MV and 42km of LV) completed
- ❖ Eastern Province Distribution Network upgraded from single phase to three phase: the overall project is estimated at 57.37% with over 46km of distribution line upgraded from single phase to three phase.
- ❖ Improvement of Substations and Distribution network (JICA-III, Upgrade of Gasogi s/s.) expropriation completed at 88%, site mobilization completed, equipment mobilization on going. overall progress estimated at 24.7%

2.7 Cross-cutting Areas

2.7.1 Capacity building

During the fiscal year 2020/21, 71 EUCL staff, 24 EDCL staff and 1 REG Holding staff were trained in various fields including Operations and maintenance of power infrastructure, Health & Safety, Public Financial Management, Project Management, Public Procurement.

The Ministry of Infrastructure in partnership with EU has also concluded procurement of a consulting firm to finalize the implementation of the functional review of the energy directorate.

2.7.2 Environment and Gender

Environment.

The Government in partnership with the private sector and other stakeholders have continued to promote use of clean and more efficient cooking solutions as way of reducing pressure on natural forests. As mentioned above, this is done through awareness campaigns conducted across the country through Radios and television as well as road shows. In addition, the government has also mobilized funds to subsidize acquisition of clean efficient cooking solutions targeting especially the vulnerable population through Rwanda Energy fund managed by BRD.

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. **Under performance of the off grid Sector.** As indicated above, the off grid sub sector performance is still below the expected targets with current household connections estimated at 17.6% as of end June 2021 against the planned 30% as per the ESSP and National Electrification Plan 2018-2024. This poses a risk of not achieving the 48% target by 2024 while remaining with only 3 years of implementation. Thus there is need to re- strategize on how to accelerate off grid penetration as well as reviewing the targets in order to leverage grid electricity connection to bridge the gap.
2. **Over 75% of the national population still rely on traditional and inefficient cooking technologies.** Results from the latest NISR household survey (EICV 6) 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 in 2.4.4, 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.
3. **Electricity Losses (Technical and non- technical):** Although, there has been significant improvement over the years in terms of loss reductions, little or no progress has been made over the last three years, where losses dropped by 0.7% between 2017/18-2019/20 and again increased last year by 0.16%. This is against the envisaged decrease of at least 1% per year as per the ESSP and thus posing a challenge of reaching the 15% mark by 2024.
4. **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 2021/21 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 2020/2021

During the last financial year, the energy sector was allocated 125.3Bn (Frw) with 122.9Bn allocated to the REG/EDCL and 2.3Bn (Frw) earmarked for districts. The development budget constituted 85% while operational expenses accounted for the remaining 15% of the total budget. By source, 75%of the budget allocated was from domestic resources while the remaining 25% was from external funding including both grant and loans.

By end June 2021, 111.4Bn (Frw) equivalent 89% of the allocated budget had been committed. with domestic finance performing better than external finance. This was mainly due to delays in execution of projects financed externally.

In terms of expenditure, transmission and distribution continued to take the largest share of the budget due to government prioritization of investments in evacuation of power from generation plants under construction as well as the ongoing expansion of the distribution network aimed at accelerating electrification of households and productive use areas. **See detailed budget on Annex 2.1.**

5. PRIORITY AREAS FOR THE FISCAL YEAR 2022/23

The key priority areas to be considered during planning and budgeting for the 2021/22 Fiscal Year will be:

- I. Scale up electricity access to reach 81% with focus on low performing districts as well as promoting affordability of off grid solution in areas far from the grid.
- II. Implementation of on-going generation projects: Committed generation projects in micro hydropower plants, methane, peat and regional hydro power plants will be monitored for timely implementation
- III. Promotion of clean cooking solutions to ensure households using traditional cooking technologies transit to cleaner cooking solutions through promotion of usage of biomass alternatives (use of LPG in urban areas and large institutions, whereas use of Pellets, Briquettes, and Biogas systems as well as improved/ efficient improved cook stoves will be encouraged in rural areas) in partnership with private sector and other stakeholders.
- 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 with street lighting in partnership with RTDA and Districts

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. Most of the recommendations from the meeting are still under implementation and key ones are captured below;

- ❖ MININFRA to review the mini-grid subsidy paper considering the comments provided by stakeholders: The proposed subsidy paper is under preparation to be ready before end November 2021 for discussions with stakeholders
- ❖ MININFRA to plan and monitor all SDG 7 indicators applicable to Rwanda. The Ministry of infrastructure has planned to mobilize resources and also engage other stakeholders to conduct periodic studies on energy demand balances that will inform the

measurement of the indicator SDG 7.3.1 y intensity measured in terms of primary energy and GDP.

6.2 Implementation of 2020/21 OAG Recommendations:

By reporting time, the office of the Auditor General of State Finance was in the process to conduct Audit for FY 2020/21 for REG and its subsidiaries. The available Audit report for REG and its subsidiaries is for FY 2019/20. However, the recommendation of FY 2020/21 will be reported in the subsequent joint sector reviews. Below is the summary of implementation status on OAG's recommendation for REG, EUCL, EDCL and 7 projects implemented under EDCL.

Table 3. 1: Implementation Status of Auditor General's resolutions for FY 19/20

SN.	REG		EUCL		EDCL		EDCL Projects (7 projects)	
	Number	%	Number	%	Number	%	Number	%
Audit Recommendations Implemented	10	48%	33	52%	10	16%	31	34%
In Progress	11	52%	22	34%	20	32%	27	30%
Not yet implemented	0	0%	9	14%	32	52%	33	36%
TOTAL	21		64		62		91	

Source: REG Audit reports

The current implementation progress as for 2019/20 indicates that across the three audited entities (REG, EUCL, EDCL) and the 7 projects under EDCL, recommendations fully implemented account for 37% and recommendations partially implemented average at 37% where as 25% are yet to be implemented

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

7. UPDATES ON SECTOR ANALYTICAL STUDIES

During the FY 2020/21 various sector documents i.e. laws, policies, strategies and studies were elaborated and approved while others are still under development and these include;

- ❖ Institutional and performance review of the energy sector reforms: The study was intended to review the implementation of energy sector reforms enacted in 2014 and recommend areas of improvement in the management of the sector and REG in particular. The study was conducted and concluded in May 2021.
- ❖ Update The Energy Policy of 2015: By end June 2021, The Ministry conducted gap analysis and further internal review of the policy is still ongoing. The next phase is to

conduct data collection, stakeholder consultations and update of the policy before end 2021/22.

- ❖ 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.
- ❖ Finalize Biomass Baseline Survey: The survey was completed validated and submitted to NISR for approval.
- ❖ Development of LPG Master Plan: The masterplan has been completed and final draft submitted to the management of the Ministry of Infrastructure for approval.
- ❖ Evaluation of the national biogas program: Activity delayed due to challenges with the consultant but it's expected to be completed this financial year.
- ❖ Development of energy efficiency indicators and data base to provide framework of measuring progress on implementation of the energy efficiency strategy.
- ❖ Biogas Systems in Rwanda critical review: This study conducted by FAO under Bioenergy and Food Security (BEFS) Project was completed and report presented to the biomass stakeholders meeting.
- ❖ Study on impact assessment of tax and fiscal incentives on the off grid electrification: Final draft report completed and presented to off grid stakeholders meeting.

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	65%	2020/21	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			62.3% (Proxy: Renewable energy share in the total final electricity generation)	2020/21	Admin Report (MININFRA)

SDGI	Indicators	Baseline value		Progress value	Progress year	Data Source
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

Signed

Chair of the SWG

Patricie UWASE
Permanent Secretary

Co- Chair of the SWG



Aissa TOURE SARR
Country Manager AfDB (Rwanda)