



**ELECTRICITY STATISTICS REPORT AS OF THE THIRD  
QUARTER (JULY-SEPTEMBER) OF THE YEAR 2023**

**Disclaimer:** Information provided in this report is subject to alteration in case of any revision or update deemed necessary.

## TABLE OF CONTENTS

1. ELECTRICITY GENERATION .....	2
1.1. Domestic generation, regional shared and imports .....	2
1.2. Electricity generation mix .....	3
1.3. System peak demand.....	4
2. ELECTRICITY SUPPLIED TO THE NATIONAL GRID .....	5
3. ELECTRICITY SOLD.....	6
4. EXPORTED ELECTRICITY .....	7
5. ELECTRICITY END USER TARIFF .....	8
1.1. Tariffs for non-industrial customer category .....	8
1.2. Tariffs for Industrial Customer Categories .....	8

## LIST OF FIGURES

Figure 1: Trends of system peak demand (MW) from Q3 2022 to Q3 2023 .....	4
Figure 2: Trends of electricity supplied to the national grid (kWh) from Q3 2022 to Q3 2023 .....	5
Figure 3: Trends of exported electricity (kWh) from Q3 2022 to Q3 2023 .....	7

## LIST OF TABLES

Table 1: Domestic generation, regional shared and imports (kWh) from Q3 2022 to Q3 2023 .....	2
Table 2: Trends of energy mix per electricity generation from Q3 2022 to Q3 2023 .....	3
Table 3: Trends of electricity sold (kWh) from Q3 2022 to Q3 2023 .....	6
Table 4: Tariffs for non-industrial customer category.....	8
Table 5: Categorization of industrial customers .....	8
Table 6: Tariffs for industrial customers with smart meters.....	9
Table 7: Flat rates for industrial customers without smart meters.....	9

## 1. ELECTRICITY GENERATION

### 1.1. Domestic generation, regional shared and imports

**Table 1: Domestic generation, regional shared and imports (kWh) from Q3 2022 to Q3 2023**

Plant name	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023
Nyabarongo HPP	21,614,700	28,305,800	32,099,100	36,537,200	17,035,400
Ntaruka HPP	9,941,900	12,946,000	8,488,674	8,186,000	6,233,000
Mukungwa HPP	16,184,752	17,327,570	16,924,380	17,302,150	18,265,527
Jabana 1 TPP	329,970	924,410	1,989,310	479,300	-
Jabana 2 TPP	21,686,496	31,004,992	22,038,400	8,408,982	3,957,920
Nasho solar	1,296,332	1,171,882	1,133,127	1,229,807	1,301,855
Nyabahanga MHPP	128,878	216,750	197,124	246,462	200,320
Jali Solar	31,829	29,751	28,281	26,171	29,999
Gisenyi MHPP	1,911,557	2,376,871	2,484,803	2,062,717	1,785,411
Gihira MHPP	2,009,696	2,365,805	2,236,321	2,283,408	1,602,329
Rukarara 1 HPP	10,402,605	13,717,643	14,083,908	15,549,032	11,321,436
Rukarara 2 MHPP	3,068,415	3,643,082	3,941,919	4,301,104	3,232,681
Murunda MHPP	130,509	154,579	164,537	52,984	-
Rugezi MHPP	3,224,541	3,083,228	2,475,858	3,735,744	1,630,647
Keya MHPP	2,701,620	328,104	0.0	1,873,686	2,419,869
Cymbili MHPP	394,770	458,890	457,820	437,200	345,850
Mazimeru MHPP	600,105	748,029	715,638	889,192	783,553
Nkora MHPP	666,200	899,420	891,120	887,420	641,980
Musarara MHPP	676,722	797,373	827,617	830,286	518,038
Mukungwa 2 HPP	5,212,712	6,208,197	5,697,125	6,175,521	5,503,292
Giciye I HPP	2,891,134	3,922,563	2,973,734	3,722,410	2,449,990
GigaWatt Global	3,367,950	3,179,390	3,169,110	3,164,800	3,568,790
Janja MHPP	300,311	297,550	220,622	291,598	314,456
Kivuwatt	55,986,650	46,870,313	50,055,287	55,025,413	56,544,338
Giciye II HPP	3,175,870	4,214,329	3,260,368	4,159,300	2,584,571
Mutobo MHPP	403,522	409,026	409,439	410,742	406,937
Gaseke MHPP	189,687	480,878	230,086	223,081	-
So Energy Mukungwa 1	11,713,380	10,307,680	8,961,060	5,911,100	384,560
So Energy Masoro	6,657,330	7,269,400	11,137,340	8,247,830	315,650
So Energy Birembo	2,465,280	2,405,040	7,369,160	5,126,200	298,380
Gashashi	232,169	0.0	237,658	357,962	210,465
Rwaza-Muko MHPP	4,594,469	5,426,699	5,054,111	4,953,769	4,823,455
Rukarara V-Mushishito	6,128,387	7,922,572	8,206,448	9,089,132	6,562,542
Rubagabaga MHPP	88,642	388,711	437,516	255,036	12,623
Agatobwe MHPP	365,073	456,107	497,248	473,399	257,783
Nyirantaruko MHPP	626,500	356,074	1,290,242	1,921,096	1,168,980
Kigasa MHPP	222,841	283,836	293,503	329,948	263,974
Giciye III	7,222,952	9,005,015	6,948,966	8,637,052	6,336,386

Plant name	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023
Nyirabuhombohombombo	834,337	677,630	751,559	1,045,370	862,281
Hakan QP	38,539,181	34,388,635	28,666,305	14,096,726	38,595,150
Gishoma PPP	16,156,800	2,947,230	18,728,820	21,324,270	12,771,990
Kavumu Mwange	-	-	68,560	443,147	272,058
Shema Power	-	-	248,490	16,851,110	23,485,420
Ntaruka A HPP	-	-	25,411	181,071	4,053,838
<b>Total domestic generation</b>	<b>264,376,775</b>	<b>267,917,054</b>	<b>276,116,106</b>	<b>277,735,928</b>	<b>243,353,725</b>
Regional shared HPP	16,990,000	18,610,000	18,452,000	21,268,000	20,820,844
Imports	7,606,607	7,492,371	7,353,011	15,387,690	61,000,830
<b>Total</b>	<b>288,973,382</b>	<b>294,019,425</b>	<b>301,921,117</b>	<b>314,391,618</b>	<b>325,175,399</b>

**Source: EUCL-REG**

Electricity generated in the third quarter of the year 2023 were 325,175.399 MWh which shows an increase of 12.5% in comparison to the electricity generation of the third quarter of 2022. The 74.8% of electricity generated during the third quarter 2023 were from domestic power plants, 6.4% from Regional Shared plants and 18.8% were imported. The total electricity generated by domestic power plants, Regional shared power plants and imports during the last five quarters were 1,524,480.941 MWh.

## 1.2. Electricity generation mix

The electricity produced in Rwanda is generated using different source of energy namely hydro, methane gas, peat, solar, heavy and light fuel oil used to run generators while another portion is imported.

**Table 2: Trends of energy mix per electricity generation from Q3 2022 to Q3 2023**

Electricity generation mix	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023
Hydro	42.61%	49.67%	46.72%	50.61%	37.80%
Methane	19.37%	15.94%	16.66%	22.86%	24.61%
Peat	18.93%	12.70%	15.70%	11.27%	15.80%
Thermal (Fuel Oil)	14.83%	17.66%	17.06%	8.96%	1.52%
Solar	1.63%	1.49%	1.43%	1.41%	1.51%
Imports	2.63%	2.55%	2.44%	4.89%	18.76%

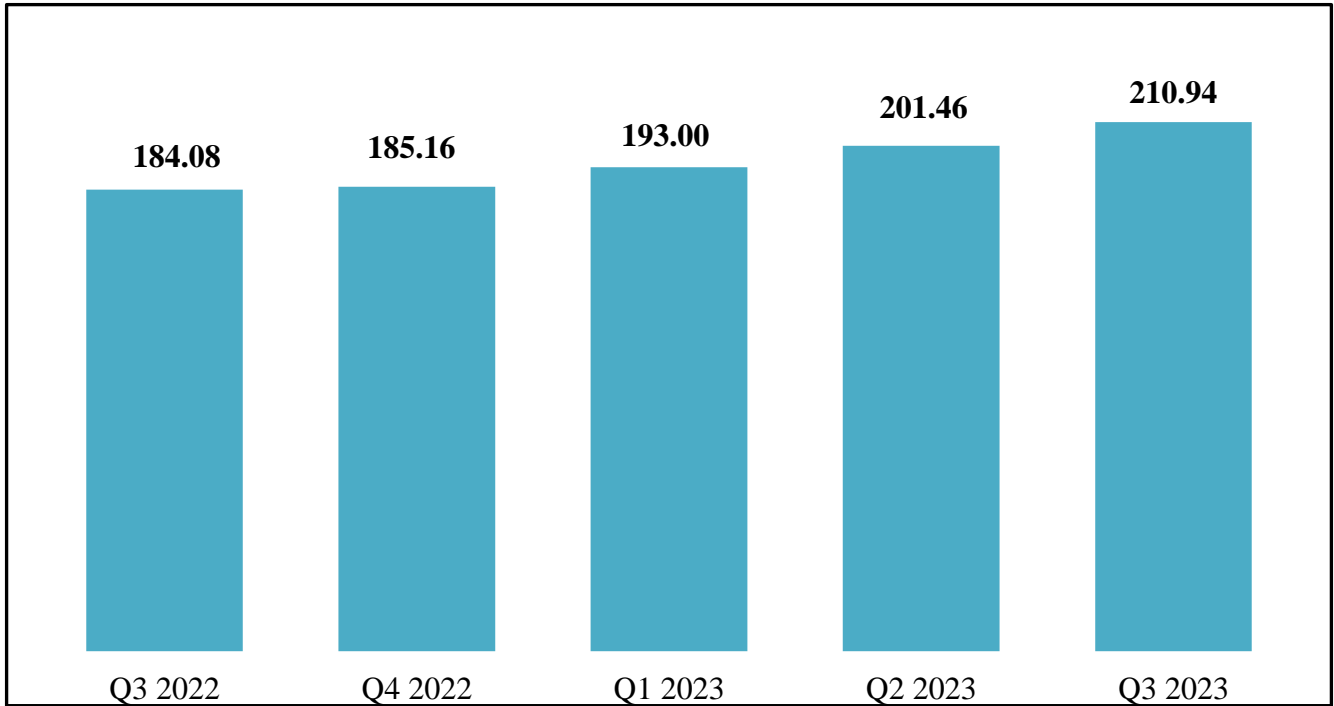
**Source: EUCL-REG**

The 37.8% of electricity generation in the third quarter of 2023 are from Hydro, 24.61% from Methane Gas, 15.8% from Peat, 1.52% from Thermal, 1.51% from Solar energy and 18.76% are the imports. In general, the 39.31% of electricity generated during the third quarter 2023 are from renewable resources and 41.93% are from non-renewable resources whereas the 18.76% are imported electricity.

### 1.3. System peak demand

The system peak demand increased by 14.6% during the third quarter of the year 2023 as compared to the 3<sup>rd</sup> quarter 2022. The peak quarter over the last five quarters was quarter Three of 2023 with a system peak demand of 210.94 MW as shown per Figure 1.

**Figure 1: Trends of system peak demand (MW) from Q3 2022 to Q3 2023**

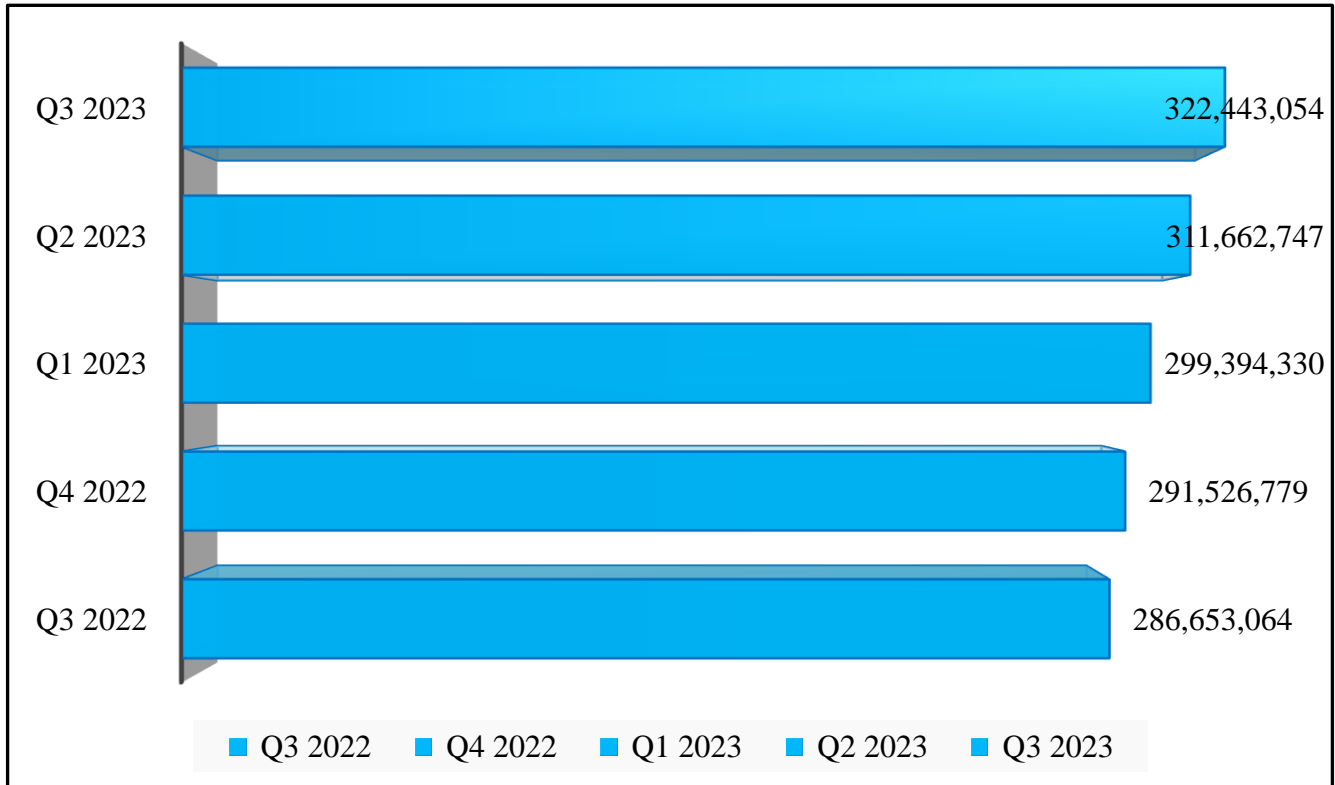


**Source: EUCL-REG**

## 2. ELECTRICITY SUPPLIED TO THE NATIONAL GRID

The figure below illustrates the quantity of electricity supplied per quarter within the country excluding exported electricity.

**Figure 2: Trends of electricity supplied to the national grid (kWh) from Q3 2022 to Q3 2023**



**Source: EUCL-REG**

The electricity supplied to the national grid by service provider increased by 12.5% during the 3<sup>rd</sup> quarter 2023 as compared to the 3<sup>rd</sup> quarter of the year 2022. The total electricity supplied to the national grid during the last five quarters were 1,511,679,975 kWh.

### 3. ELECTRICITY SOLD

The electricity sold includes both the pre-paid and post-paid electricity.

**Table 3: Trends of electricity sold (kWh) from Q3 2022 to Q3 2023**

<b>Customer category</b>	<b>Q3 2022</b>	<b>Q4 2022</b>	<b>Q1 2023</b>	<b>Q2 2023</b>	<b>Q3 2023</b>
Industries	73,645,659	76,641,505	79,722,362	87,183,310	82,748,823
Non-residential	55,425,840	55,708,887	58,208,318	58,978,906	60,627,423
Residential	46,930,009	47,641,702	48,146,169	50,881,861	55,420,152
Telecom towers	13,462,241	13,318,912	13,090,032	13,368,779	13,999,029
Water treatment plants	13,098,140	12,530,956	12,561,267	13,110,784	12,853,175
Water pumping stations	10,529,093	9,810,519	10,163,377	10,395,276	12,187,530
Hotels	11,997,688	12,681,354	12,034,071	12,597,106	13,197,207
Health facilities	5,392,241	5,451,823	5,326,621	5,676,452	5,691,932
Broadcasters	1,197,166	1,182,632	1,144,169	1,322,395	1,400,808
Commercial data centers	501,146	523,157	529,723	562,508	591,368
Street lights	5,435,291	5,899,943	5,919,436	6,350,357	6,762,253
Nasho Own Use	710,753	546,485	440,331	827,240	534,494
Exports	2,320,318	2,492,646	2,526,787	2,728,871	2,732,345
<b>Total</b>	<b>240,645,584</b>	<b>244,430,520</b>	<b>249,812,662</b>	<b>263,983,845</b>	<b>268,746,539</b>

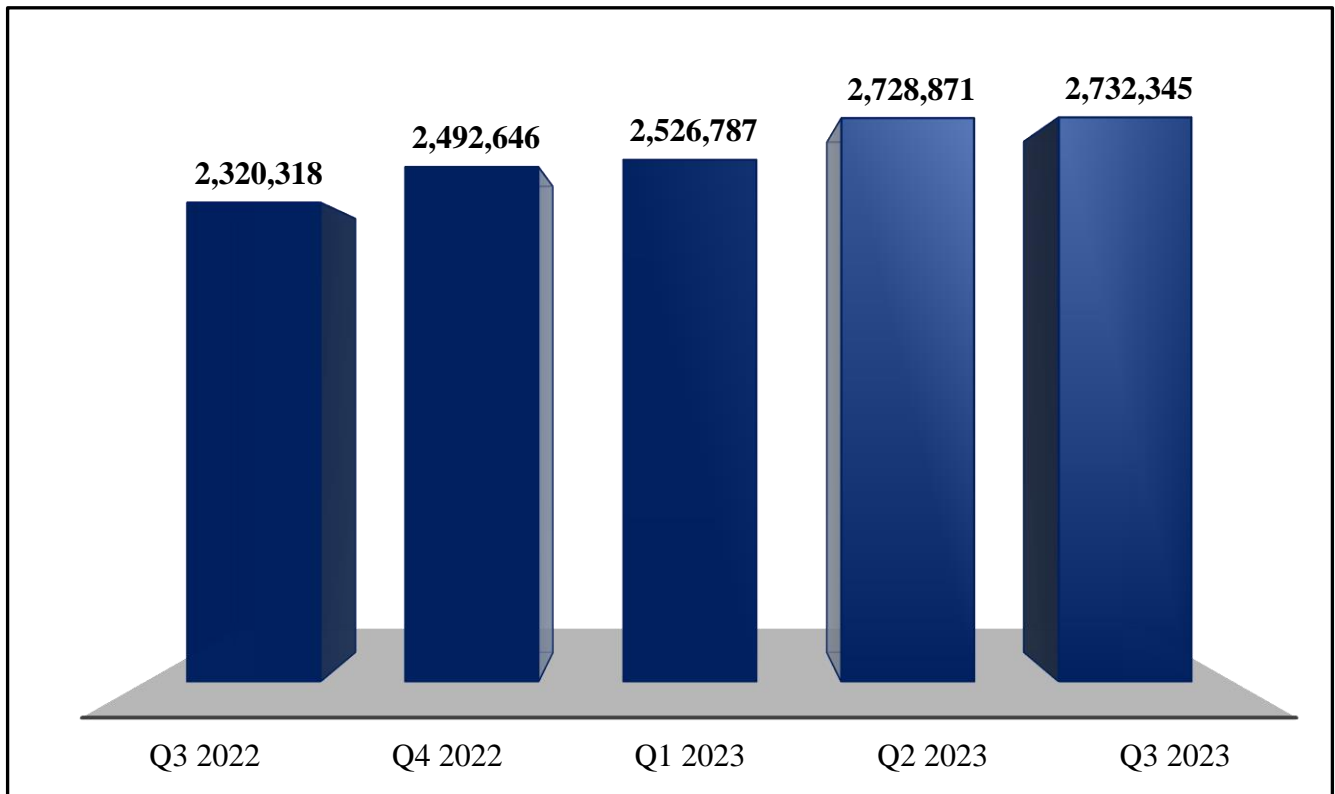
**Source: EUCL-REG**

In the third quarter of the year 2023, the 30.8% of the total electricity sold by utility were to industries, 22.6% to non-residential customers, 20.6% to residential customers and the remaining 22.3% were sold to telecom towers, water treatment plants, water pumping stations, hotels, health facilities, broadcasters and commercial data centers. The 2.5% of electricity sold by operator were consumed by public street lights, 0.2 were consumed by Nasho irrigation and the 1.0% were the exports.

#### 4. EXPORTED ELECTRICITY

The exported electricity increased by 17.8% during the third quarter of the year 2023 as compared to the 3<sup>rd</sup> quarter 2022. The highest exports recorded over the last five quarters were 2,732,345 kWh for quarter Three of 2023.

**Figure 3: Trends of exported electricity (kWh) from Q3 2022 to Q3 2023**



**Source: EUCL-REG**



## 5. ELECTRICITY END USER TARIFF

The electricity tariff charged to EUCL customers since 21<sup>st</sup> January 2020 was structured as described in the below tables.

### 1.1. Tariffs for non-industrial customer category

**Table 4: Tariffs for non-industrial customer category**

Category	Consumption block	Frw/kWh (VAT & Regulatory fee exclusive)
Residential	[0-15] per month ( kWh)	89
	]15-50] per month ( kWh)	212
	>50 per month ( kWh)	249
Non-residential	[0-100] per month ( kWh)	227
	>100 per month ( kWh)	255
Water Treatment Plants & Water Pumping Stations	All consumed kWh	126
Telecom towers	All consumed kWh	201
Hotels	All consumed kWh	157
Health Facilities	All consumed kWh	186
Broadcasters	All consumed kWh	192
Commercial data centers	All consumed kWh	179

**Source: Board Decision N°01/BD/ER-EWS/RURA/2020**

### 1.2. Tariffs for Industrial Customer Categories

Industrial customers are those registered as industries with Rwanda Development Board (RDB). Industrial customers are categorized based on their level of consumption defined as follows:

**Table 5: Categorization of industrial customers**

Industry category	Annual consumption (kWh/year)
Small	≤ 22,000
Medium	]22,000- 660,000]
Large	>660,000

**Source: Board Decision N°01/BD/ER-EWS/RURA/2020**

**Table 6: Tariffs for industrial customers with smart meters**

Category	Energy charge (Frw/kWh)	Charges (VAT and regulatory fee exclusive)				Customer service charge (Frw/Month)
		Maximum demand charge (Frw/kVA/month)				
		Off-peak hours (11:00PM-07:59AM)	Shoulder hours (8:00AM-5:59PM)	Peak hours (06:00PM-10:59PM)		
Small	134	1,691	4,008	11,017	10,000	
Medium	103	1,292	3,588	10,514	10,000	
Large	94	886	2,004	7,184	10,000	

**Source: Board Decision N°01/BD/ER-EWS/RURA/2020**

**Table 7: Flat rates for industrial customers without smart meters**

Industrial customers without smart meters are charged at flat rates described in table below until the smart meters are installed in their facilities.

Industry category	Flat rate (Frw/kWh, VAT & Regulatory fee exclusive)
Small	151
Medium	123
Large	106

**Source: Board Decision N°01/BD/ER-EWS/RURA/2020**