



**ELECTRICITY STATISTICS REPORT AS OF THE SECOND
QUARTER (APRIL-JUNE) OF THE YEAR 2023**

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

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1. ELECTRICITY GENERATION

1.1. Domestic generation, regional shared and imports

Table 1: Domestic generation, regional shared and imports (kWh) from Q2 2022 to Q2 2023

Plant name	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Nyabarongo HPP	35,115,600	21,614,700	28,305,800	32,099,100	36,537,200
Ntaruka HPP	4,542,100	9,941,900	12,946,000	8,488,674	8,186,000
Mukungwa HPP	15,052,606	16,184,752	17,327,570	16,924,380	17,302,150
Jabana 1 TPP	103,900	329,970	924,410	1,989,310	479,300
Jabana 2 TPP	24,365,664	21,686,496	31,004,992	22,038,400	8,408,982
Nasho solar	1,148,008	1,296,332	1,171,882	1,133,127	1,229,807
Nyabahanga MHPP	181,580	128,878	216,750	197,124	246,462
Jali Solar	28,744	31,829	29,751	28,281	26,171
Gisenyi MHPP	2,156,060	1,911,557	2,376,871	2,484,803	2,062,717
Gihira MHPP	2,452,765	2,009,696	2,365,805	2,236,321	2,283,408
Rukarara 1 HPP	14,285,371	10,402,605	13,717,643	14,083,908	15,549,032
Rukarara 2 MHPP	3,863,849	3,068,415	3,643,082	3,941,919	4,301,104
Murunda MHPP	169,645	130,509	154,579	164,537	52,984
Rugezi MHPP	5,106,230	3,224,541	3,083,228	2,475,858	3,735,744
Keya MHPP	3,050,217	2,701,620	328,104	0.0	1,873,686
Cymbili MHPP	471,160	394,770	458,890	457,820	437,200
Mazimeru MHPP	756,361	600,105	748,029	715,638	889,192
Nkora MHPP	821,950	666,200	899,420	891,120	887,420
Musarara MHPP	784,281	676,722	797,373	827,617	830,286
Mukungwa 2 HPP	4,989,362	5,212,712	6,208,197	5,697,125	6,175,521
Giciye I HPP	4,223,413	2,891,134	3,922,563	2,973,734	3,722,410
GigaWatt Global	3,184,960	3,367,950	3,179,390	3,169,110	3,164,800
Janja MHPP	289,908	300,311	297,550	220,622	291,598
Kivuwatt	54,833,262	55,986,650	46,870,313	50,055,287	55,025,413
Giciye II HPP	4,515,756	3,175,870	4,214,329	3,260,368	4,159,300
Mutobo MHPP	405,979	403,522	409,026	409,439	410,742
Gaseke MHPP	225,241	189,687	480,878	230,086	223,081
So Energy Mukungwa 1	12,928,750	11,713,380	10,307,680	8,961,060	5,911,100
So Energy Masoro	10,337,760	6,657,330	7,269,400	11,137,340	8,247,830
So Energy Birembo	5,009,610	2,465,280	2,405,040	7,369,160	5,126,200
Gashashi	294,071	232,169	0.0	237,658	357,962
Rwaza-Muko MHPP	4,369,480	4,594,469	5,426,699	5,054,111	4,953,769
Rukarara V-Mushishito	7,557,945	6,128,387	7,922,572	8,206,448	9,089,132
Rubagabaga MHPP	470,463	88,642	388,711	437,516	255,036
Agatobwe MHPP	474,802	365,073	456,107	497,248	473,399
Nyirantaruko MHPP	1,537,606	626,500	356,074	1,290,242	1,921,096
Kigasa MHPP	279,607	222,841	283,836	293,503	329,948
Giciye III	10,317,571	7,222,952	9,005,015	6,948,966	8,637,052

Plant name	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Nyirabuhombo	660,537	834,337	677,630	751,559	1,045,370
Hakan QP	11,949,959	38,539,181	34,388,635	28,666,305	14,096,726
Gishoma PPP	2,783,825	16,156,800	2,947,230	18,728,820	21,324,270
Kavumu Mwange	-	-	-	68,560	443,147
Shema Power	-	-	-	248,490	16,851,110
Ntaruka A HPP	-	-	-	25,411	181,071
Total domestic generation	256,095,958	264,376,775	267,917,054	276,116,106	277,735,928
Regional shared HPP	15,300,000	16,990,000	18,610,000	18,452,000	21,268,000
Imports	8,221,250	7,606,607	7,492,371	7,353,011	15,387,690
Total	279,617,208	288,973,382	294,019,425	301,921,117	314,391,618

Source: EUCL-REG

Electricity generated during the second quarter of the year 2023 were 314,391.62 MWh which shows a positive trend of 12.44% as compared to the electricity generation of the second quarter of 2022. The total electricity generated by domestic power plants, Regional shared power plants and imports during the last five quarters were 1,478,922.75 MWh. The 88.34% of electricity generated in the second quarter 2023 were from domestic power plants, 6.77% from Regional Shared plants and 4.89% were imported.

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 Q2 2022 to Q2 2023

Electricity generation mix	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Thermal (Fuel Oil)	18.86%	14.83%	17.66%	17.06%	8.96%
Hydro	51.76%	42.61%	49.67%	46.72%	50.61%
Methane	19.61%	19.37%	15.94%	16.66%	22.86%
Peat	5.27%	18.93%	12.70%	15.70%	11.27%
Solar	1.56%	1.63%	1.49%	1.43%	1.41%
Imports	2.94%	2.63%	2.55%	2.44%	4.89%

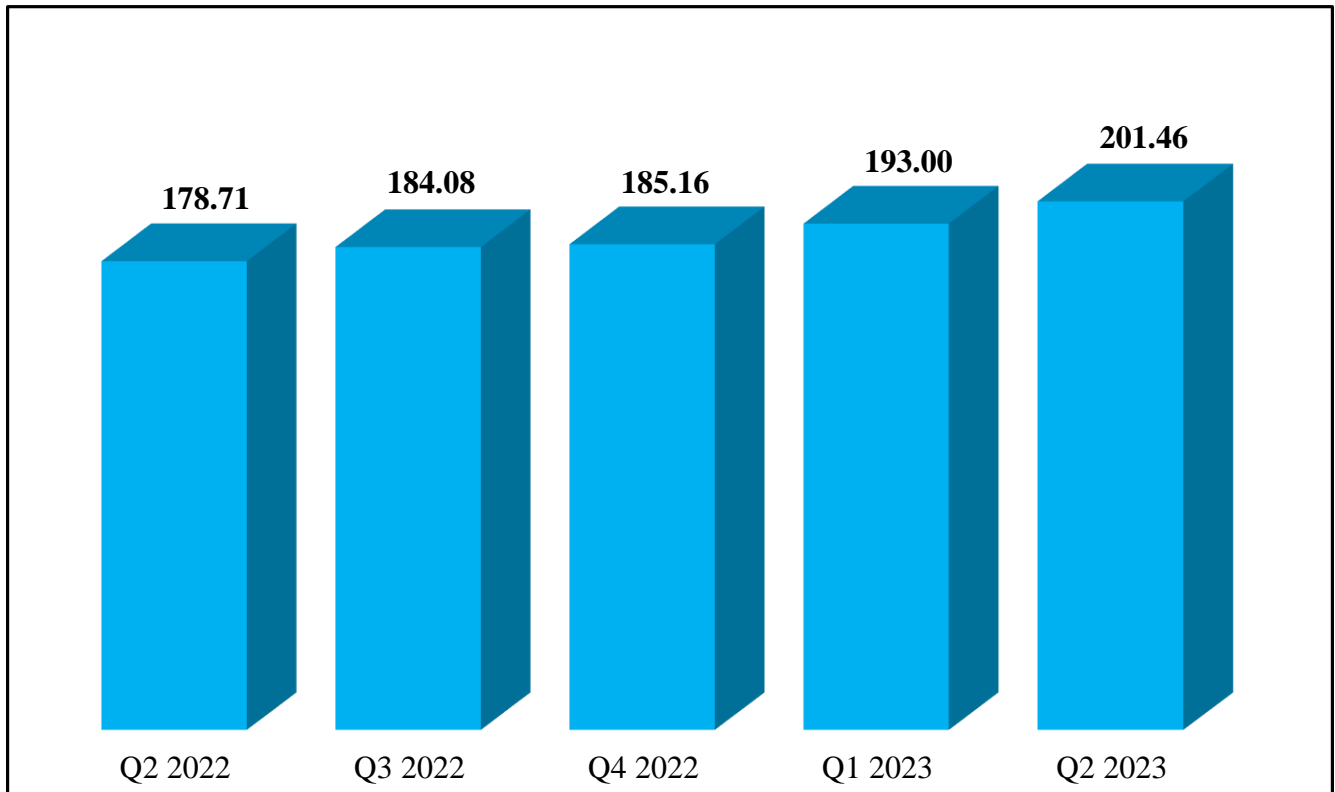
Source: EUCL-REG

The 50.61% of electricity generation during the second quarter of 2023 are from Hydro, 8.96% from Thermal, 22.86% from Methane Gas, 11.27% from Peat, 1.41% from Solar energy and 4.89% are the imports. In general, the 52.02% of electricity generation in Q2 2023 are from renewable resources and 43.09% are from non-renewable resources whereas 4.89% are imported electricity.

1.3. System peak demand

The system peak demand increased by 12.7% in the 2nd quarter of the year 2023 in comparison to the 2nd quarter 2022. The peak quarter over the last five quarters was quarter Two of 2023 with a system peak demand of 201.46 MW as shown per Figure 1.

Figure 1: Trends of system peak demand (MW) from Q2 2022 to Q2 2023

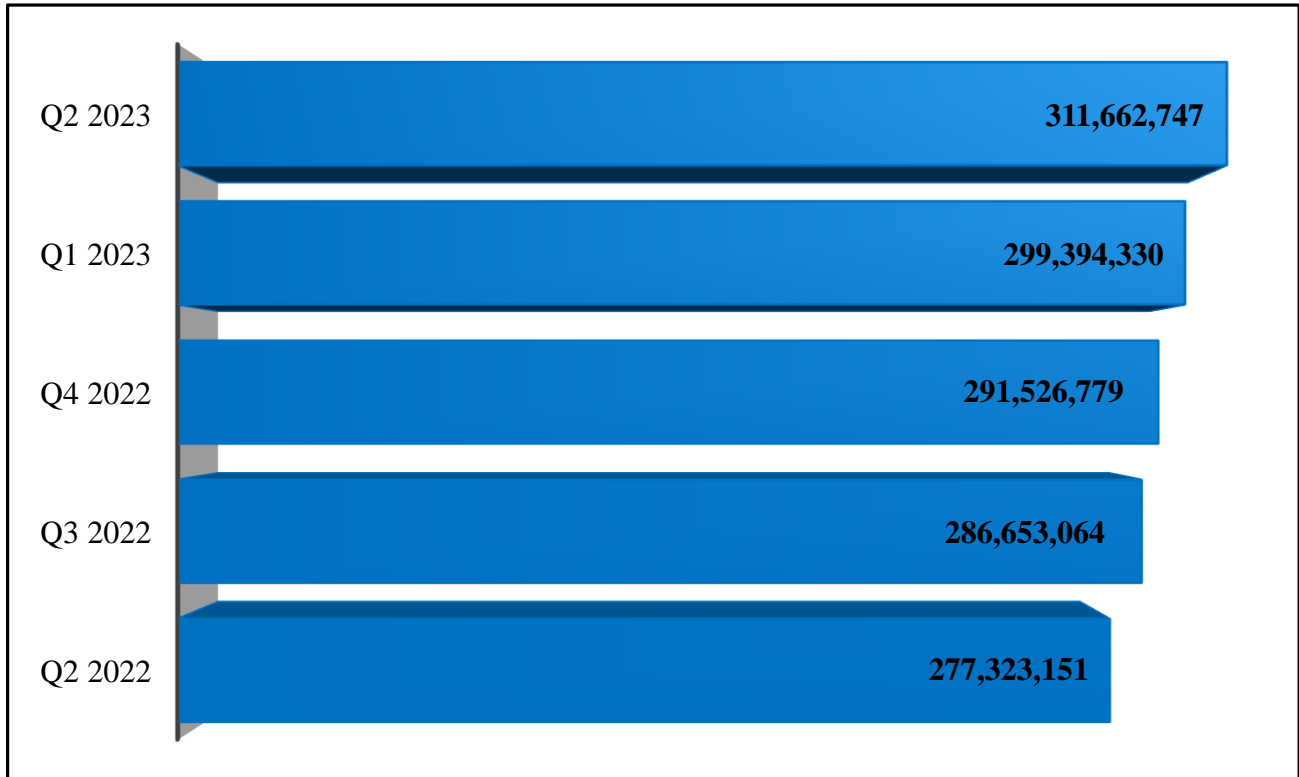


Source: EUCL-REG

2. ELECTRICITY SUPPLIED TO THE NATIONAL GRID

The figure below illustrates the quantity of electricity supplied in each quarter within the county excluding exported electricity.

Figure 2: Trends of electricity supplied to the national grid (kWh) from Q2 2022 to Q2 2023



Source: EUCL-REG

The electricity supplied to the national grid by service provider increased by 12.4% in the 2nd quarter 2023 in comparison to the 2nd quarter of the year 2022. The total electricity supplied to the national grid during the last five quarters were 1,466,560,072 kWh.

3. ELECTRICITY SOLD

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

Table 3: Trends of electricity sold (kWh) from Q2 2022 to Q2 2023

Customer category	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Industries	73,024,547	73,645,659	76,641,505	79,722,362	87,183,310
Non-residential	53,986,535	55,425,840	55,708,887	58,208,318	58,978,906
Residential	42,964,053	46,930,009	47,641,702	48,146,169	50,881,861
Telecom towers	13,303,249	13,462,241	13,318,912	13,090,032	13,368,779
Water treatment plants	12,369,768	13,098,140	12,530,956	12,561,267	13,110,784
Hotels	11,032,736	11,997,688	12,681,354	12,034,071	12,597,106
Water pumping stations	9,524,843	10,529,093	9,810,519	10,163,377	10,395,276
Health facilities	5,195,074	5,392,241	5,451,823	5,326,621	5,676,452
Broadcasters	1,186,248	1,197,166	1,182,632	1,144,169	1,322,395
Commercial data centers	505,685	501,146	523,157	529,723	562,508
Street lights	4,833,620	5,435,291	5,899,943	5,919,436	6,350,357
Nasho Own Use	731,682	710,753	546,485	440,331	827,240
Exports	2,294,057	2,320,318	2,492,646	2,526,787	2,728,871
Total	230,952,098	240,645,584	244,430,520	249,812,662	263,983,845

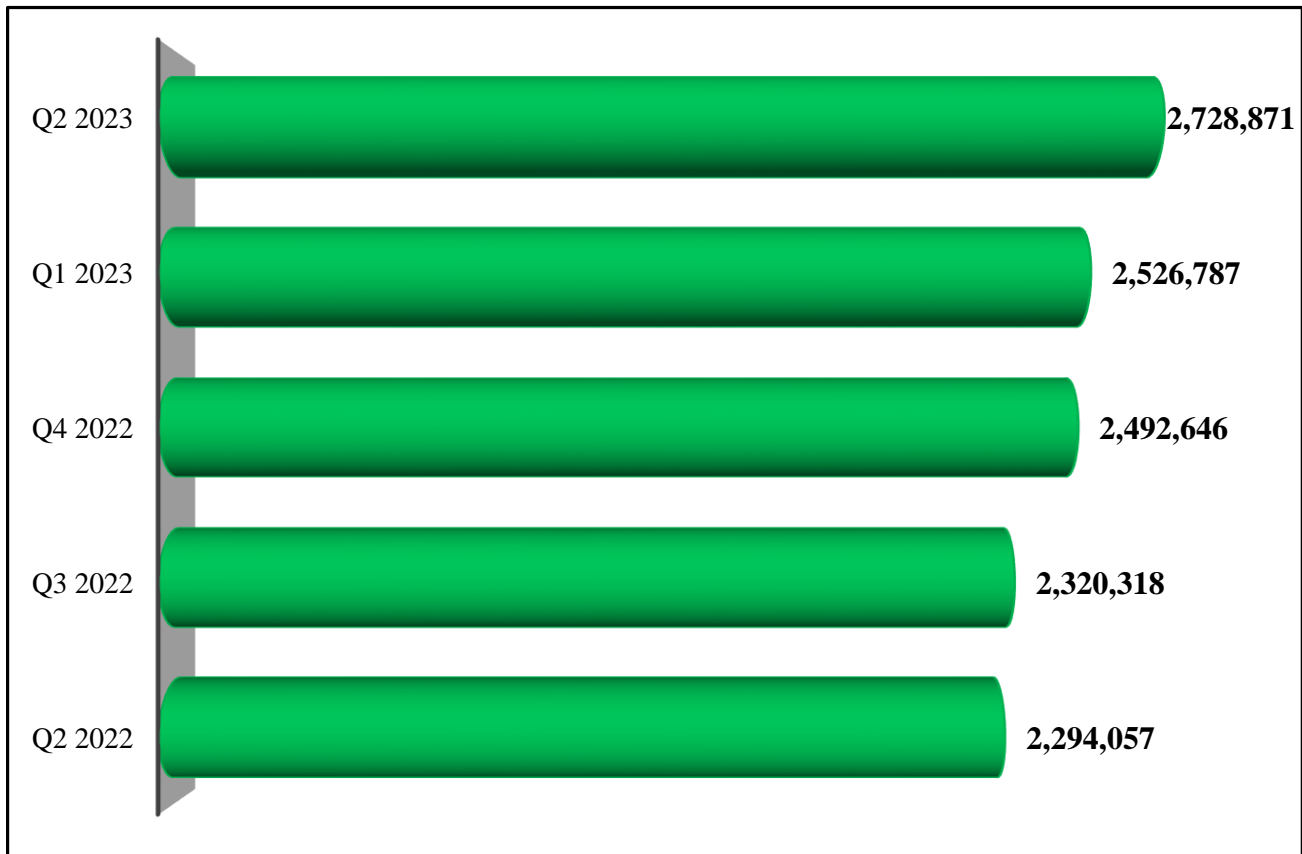
Source: EUCL-REG

During the second quarter of the year 2023, the 33.03% of the total electricity sold by utility were to industries, 22.34% to non-residential customers, 19.27% to residential customers and the remaining 21.61% were sold to water telecom towers, water treatment plants, hotels, pumping stations, health facilities, broadcasters and commercial data centers. The 2.41% of electricity sold by operator were consumed by public street lights, 0.31% were consumed by Nasho irrigation and the 1.03% were the exports.

4. EXPORTED ELECTRICITY

The exported electricity increased by 19.0% in the second quarter of the year 2023 in comparison to the 2nd quarter 2022. The highest exports recorded over the last five quarters were 2,728,871 kWh for the quarter Two of 2023.

Figure 3: Trends of exported electricity (kWh) from Q2 2022 to Q2 2023



Source: EUCL-REG

5. ELECTRICITY END USER TARIFF

The electricity tariff charged to EUCL customers since 21st 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