



**ELECTRICITY STATISTICS REPORT AS OF THE SECOND  
QUARTER (APRIL-JUNE) OF THE YEAR 2024**

**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 2023 to Q2 2024**

Plant name	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Nyabarongo HPP	36,537,200	17,035,400	27,262,300	43,287,600	38,954,100
Ntaruka HPP	8,186,000	6,233,000	4,858,000	6,481,000	6,713,160
Mukungwa HPP	17,302,150	18,265,527	17,004,242	14,328,249	14,158,471
Jabana 1 TPP	479,300	-	-	-	-
Jabana 2 TPP	8,408,982	3,957,920	1,881,280	2,462,240	2,533,536
Nasho solar	1,229,807	1,301,855	1,031,865	1,021,237	1,197,648
Nyabahanga MHPP	246,462	200,320	176,997	222,396	261,322
Jali Solar	26,171	29,999	25,077	24,587	25,266
Gisenyi MHPP	2,062,717	1,785,411	2,040,343	2,218,780	1,460,941
Gihira MHPP	2,283,408	1,602,329	1,966,370	2,532,457	2,142,970
Rukarara 1 HPP	15,549,032	11,321,436	14,948,920	15,827,515	15,437,790
Rukarara 2 MHPP	4,301,104	3,232,681	3,934,988	3,474,722	3,793,712
Murunda MHPP	52,984	-	-	-	-
Rugezi MHPP	3,735,744	1,630,647	2,464,319	3,528,104	3,733,017
Keya MHPP	1,873,686	2,419,869	2,908,168	3,328,667	2,936,342
Cymbili MHPP	437,200	345,850	391,010	425,960	383,590
Mazimeru MHPP	889,192	783,553	889,858	876,775	561,441
Nkora MHPP	887,420	641,980	762,410	904,000	810,060
Musarara MHPP	830,286	518,038	911,108	877,731	378,475
Mukungwa 2 HPP	6,175,521	5,503,292	5,614,542	4,756,103	4,534,293
Giciye I HPP	3,722,410	2,449,990	4,019,743	4,993,984	4,765,372
GigaWatt Global	3,164,800	3,568,790	3,130,010	3,070,540	3,403,190
Janja MHPP	291,598	314,456	306,935	300,439	237,452
Kivuwatt	55,025,413	56,544,338	48,455,536	55,908,155	53,720,408
Giciye II HPP	4,159,300	2,584,571	4,538,264	5,259,977	4,897,535
Mutobo MHPP	410,742	406,937	415,020	379,684	398,833
Gaseke MHPP	223,081	-	-	-	88,817
So Energy Mukungwa 1	5,911,100	384,560	-	-	-
So Energy Masoro	8,247,830	315,650	-	-	-
So Energy Birembo	5,126,200	298,380	-	-	-
Gashashi	357,962	210,465	270,097	338,121	286,986
Rwaza-Muko MHPP	4,953,769	4,823,455	4,251,384	4,462,241	4,485,599
Rukarara V-Mushishito	9,089,132	6,562,542	8,677,529	8,830,940	8,736,716
Rubagabaga MHPP	255,036	12,623	229,219	233,368	321,168
Agatobwe MHPP	473,399	257,783	427,570	465,967	425,557
Nyirantaruko MHPP	1,921,096	1,168,980	1,706,133	1,574,273	2,348,127
Kigasa MHPP	329,948	263,974	307,238	294,769	92,751
Giciye III	8,637,052	6,336,386	12,407,105	12,912,138	10,198,488

Plant name	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Nyirabuhombohomb	1,045,370	862,281	1,051,092	254,873	-
Hakan QP	14,096,726	38,595,150	36,547,200	8,065,500	11,044,200
Gishoma PPP	21,324,270	12,771,990	-	-	21,780
Kavumu Mwange	443,147	272,058	469,423	489,151	549,377
Shema Power	16,851,110	23,485,420	48,590,080	60,486,800	86,974,800
Ntaruka A HPP	181,071	4,053,838	4,605,739	4,240,713	4,368,484
<b>Total domestic generation</b>	<b>277,735,928</b>	<b>243,353,725</b>	<b>269,477,114</b>	<b>279,139,758</b>	<b>297,381,774</b>
Regional shared HPP	21,268,000	20,820,844	37,683,425	40,850,839	42,452,549
Imports	15,387,690	61,000,830	26,049,663	22,082,219	26,100,538
<b>Total</b>	<b>314,391,618</b>	<b>325,175,399</b>	<b>333,210,202</b>	<b>342,072,816</b>	<b>365,934,860</b>

**Source: EUCL-REG**

In the second quarter of 2024, Rwanda produced a total of 365.934 GWh of electricity from various energy sources. Domestic power plants accounted for 81.3% of this electricity generation, while Regional Shared plants contributed 11.6%, and 7.1% was sourced through imports. This represents a 16.4% increase in total electricity generation in comparison to the same period in 2023, highlighting the growth of Rwanda's energy sector.

## 1.2. Electricity generation mix

Rwanda's electricity production relies on a mix of energy sources, including hydro, methane gas, peat, solar, as well heavy and light fuel oil which are used to power generators. Additionally, electricity contributes to the national supply.

**Table 2: Trends of energy mix per electricity generation from Q2 2023 to Q2 2024**

Electricity generation mix	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Hydro	50.61%	37.80%	50.27%	55.24%	49.44%
Methane	22.86%	24.61%	29.12%	34.03%	38.45%
Peat	11.27%	15.80%	10.97%	2.36%	3.03%
Thermal (Fuel Oil)	8.96%	1.52%	0.56%	0.72%	0.69%
Solar	1.41%	1.51%	1.26%	1.20%	1.26%
Imports	4.89%	18.76%	7.82%	6.46%	7.13%

**Source: EUCL-REG**

In the second quarter of 2024, Rwanda's electricity generation came from a range of sources, with hydro providing the largest share at 49.44%. Methane gas contributed 38.45%, solar energy comprised 1.26%, peat made up 3.03%, thermal sources accounted for 0.69%, and 7.13% was sourced from imports.

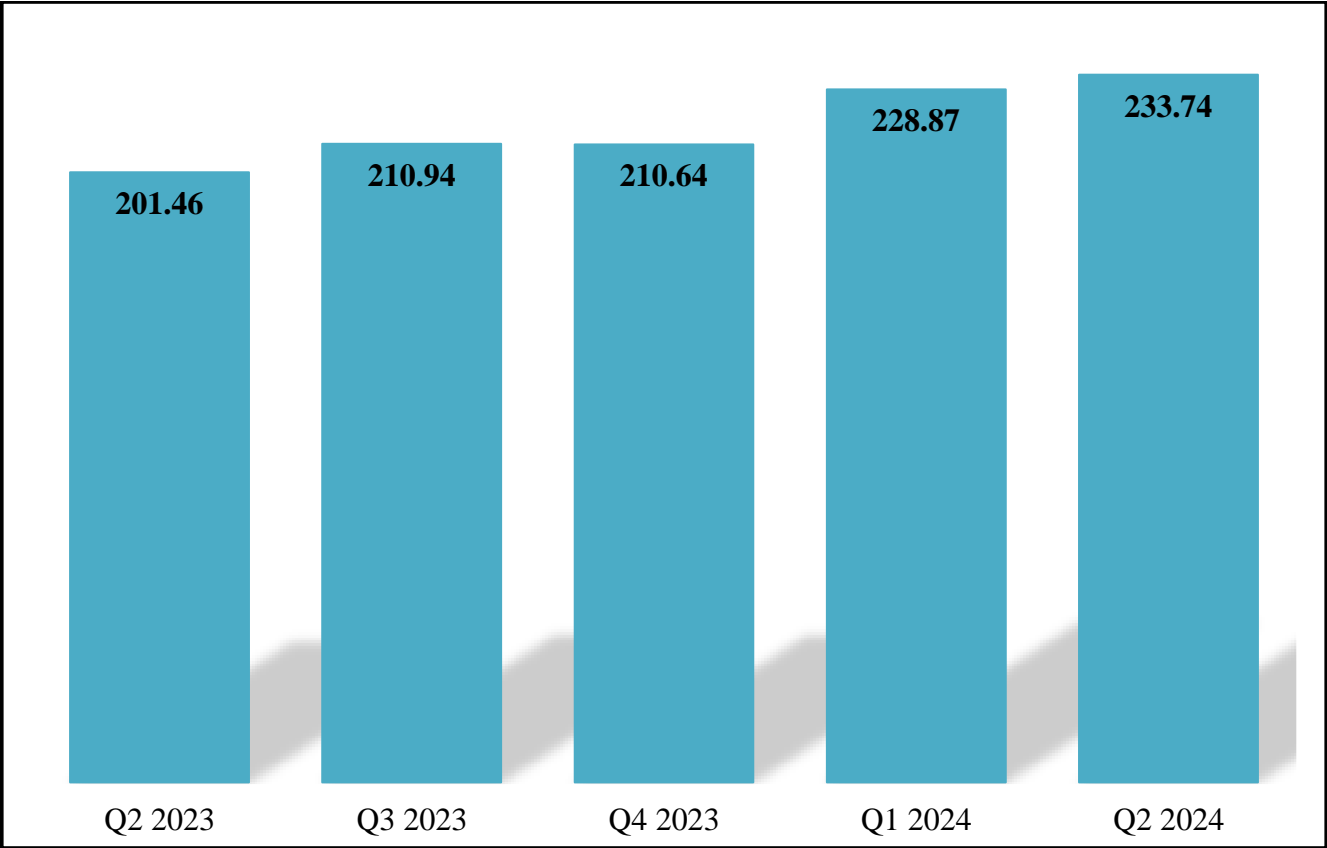
In the second quarter of 2024, the 50.70% of the produced electricity came from renewable sources, whereas non-renewable sources contributed 42.17%. Furthermore, imported electricity made up 7.13% of the overall electricity generation.

### 1.3. System peak demand

System peak demand denotes the maximum electrical power required by a utility's customers at any specific time. This is an essential metric for the operation, planning, and management of the electrical grid, affecting decisions on capacity, reliability, cost, as well infrastructure investments.

During the second quarter of 2024, there was a notable rise in system peak demand as compared to the same period in 2023, showing an increase of 16.0%. The second quarter of 2024 marked the highest peak in the past five quarters, reaching a system peak demand of 233.74 MW as displayed in Figure 1.

**Figure 1: Trends of system peak demand (MW) from Q2 2023 to Q2 2024**

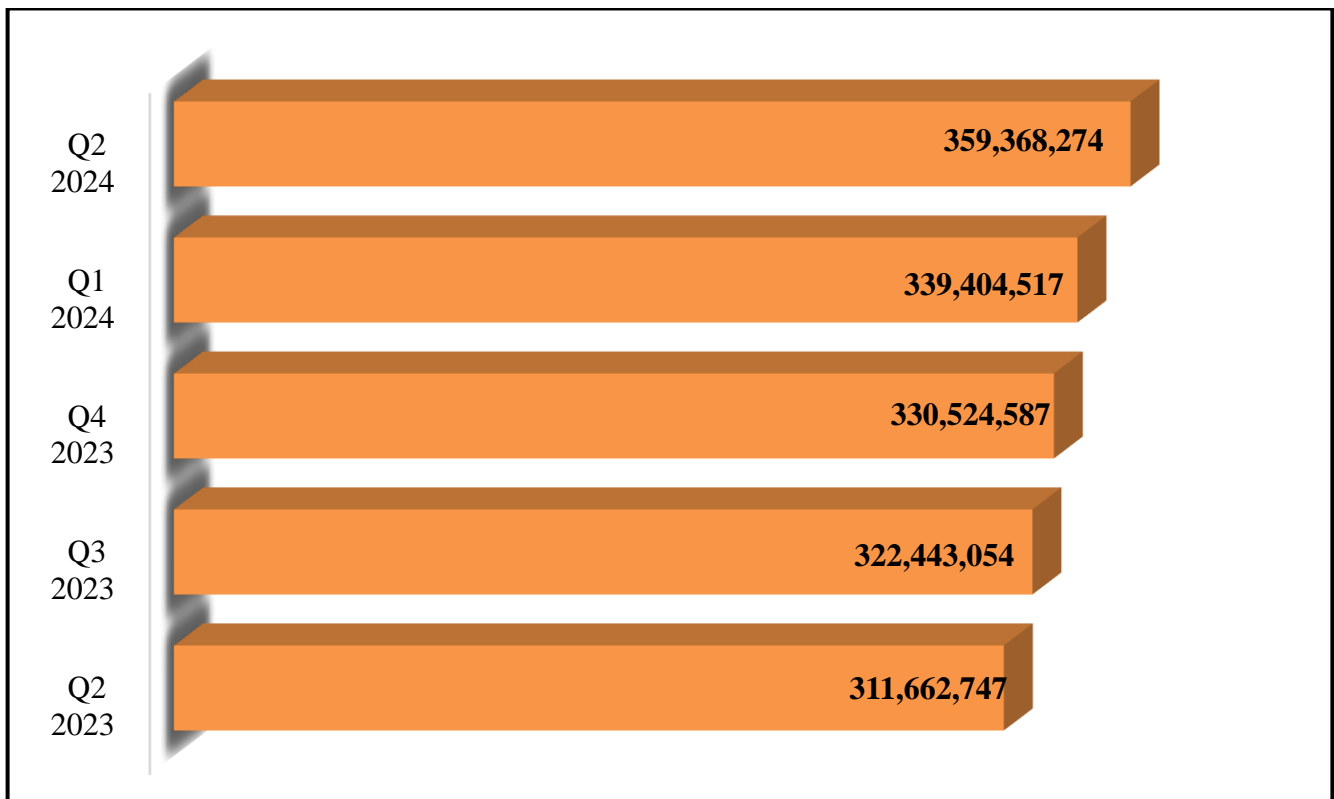


Source: EUCL-REG

## 2. ELECTRICITY SUPPLIED TO THE NATIONAL GRID

Electricity supply refers to the provision of electrical power to homes, businesses, and other various facilities. This process involves the generation, transmission, and distribution of electricity from power plants to end-users. The electricity is transmitted through high-voltage power lines over long distances to substations, where it is stepped down to lower voltages for distribution through local power lines to homes, businesses, and other various facilities. The figure below depicts the amount of electricity supplied within the country per quarter, excluding the electricity exported to neighboring countries.

**Figure 2: Trends of electricity supplied to the national grid (kWh) from Q2 2023 to Q2 2024**



**Source: EUCL-REG**

In the second quarter of 2024, the service provider supplied a total of 359,368,274 kWh of electricity to the national grid, which represents a 15.3% increase compared to the same period in the previous year. Furthermore, the total amount of electricity supplied to the national grid over the last five quarters was 1,663,403,179 kWh, signifying a sustained level of high supply during the period.

### 3. ELECTRICITY SOLD

Electricity sold refers to the amount of electricity that a utility provider has delivered to customers within a specific timeframe, usually measured in kilowatt-hours (kWh). This metric represents the actual consumption of electricity by end-users, such as households, businesses, industries, etc. The electricity sold includes both the pre-paid and post-paid electricity.

**Table 3: Trends of electricity sold (kWh) from Q2 2023 to Q2 2024**

Customer category	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Residential	50,881,861	55,420,152	56,716,702	58,677,996	61,233,673
Non-residential	58,978,906	60,627,423	60,493,093	65,007,854	68,659,739
Water pumping stations	10,395,276	12,187,530	10,441,416	10,278,792	11,125,939
Water treatment plants	13,110,784	12,853,175	12,834,364	12,214,934	12,676,117
Broadcasters	1,322,395	1,400,808	1,347,760	1,313,711	1,298,843
Health facilities	5,676,452	5,691,932	5,959,688	5,935,447	5,975,793
Telecom towers	13,368,779	13,999,029	14,128,902	14,634,130	15,068,371
Hotels	12,597,106	13,197,207	13,500,633	12,649,030	12,701,488
Commercial data centers	562,508	591,368	594,926	592,027	587,835
Industries	87,183,310	82,748,823	88,680,427	87,196,477	93,480,465
Street lights	6,350,357	6,762,253	7,441,047	7,598,687	6,879,424
Nasho Own Use	827,240	534,494	324,150	303,661	852,997
Exports	2,728,871	2,732,345	2,685,615	2,668,299	6,566,586
<b>Total</b>	<b>263,983,845</b>	<b>268,746,539</b>	<b>275,148,722</b>	<b>279,071,046</b>	<b>297,107,270</b>

**Source: EUCL-REG**

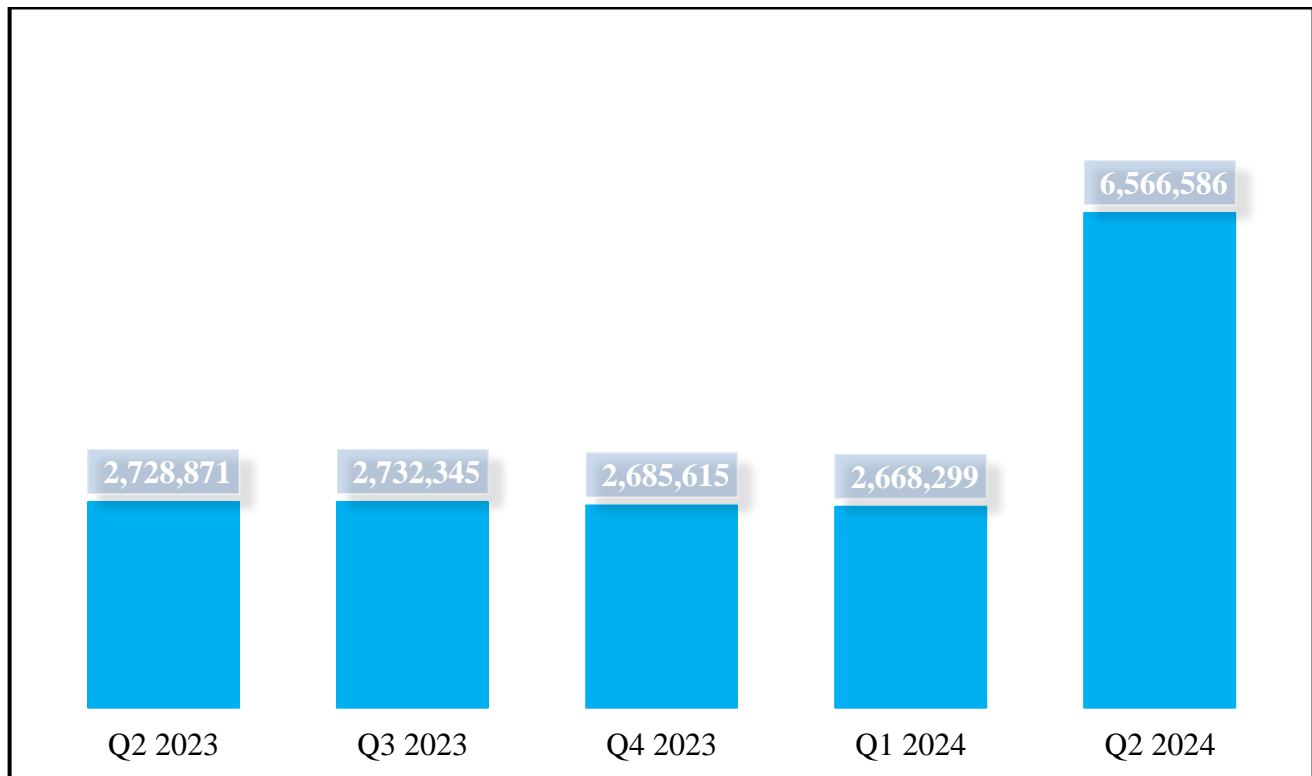
In the second quarter of 2024, the utility provider sold a total of 297,107,270 kWh, marking an 12.5% increase from the 263,983,845 kWh reported during the same period in 2023. Out of the total electricity sold, 31.5% was purchased by industrial customers, 23.1% by non-residential customers, and 20.6% by residential customers.

In addition to the industrial, non-residential, and residential customers, the utility provider sold 20.0% of the total electricity produced to other customers, such as telecom towers, water treatment plants, water pumping stations, hotels, health facilities, broadcasters, and commercial data centers. Public street lights consumed 2.3% of the electricity sold, while Nasho irrigation consumed 0.3%, and 2.2% of electricity produced was exported. These proportions suggest that the utility provider has a diverse customer base and is able to efficiently cater to the electricity demands of various sectors.

#### 4. EXPORTED ELECTRICITY

Exported electricity refers the electrical energy generated within Rwanda and subsequently supplied to neighboring countries for their consumption. The amount of electricity exported by the utility provider increased by 2.4 times to reach 6,566,586 kWh in the 2<sup>nd</sup> quarter of 2024 up from 2,728,871 kWh in the same period of 2023. The highest exports recorded within the past five quarters occurred in the 2<sup>nd</sup> quarter of 2024 with 6,566,586 kWh. The total exports over the last five years amounted to 17,381,717 kWh.

**Figure 3: Trends of exported electricity (kWh) from Q2 2023 to Q2 2024**



**Source: EUCL-REG**



## 5. ELECTRICITY END USER TARIFF

The electricity tariff applied to EUCL customers since 21<sup>st</sup> January 2020, followed the structure outlined in the tables below.

### 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 defined as those registered as industries with the Rwanda Development Board (RDB). Those customers are classified according to their consumption level, which is outlined 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**

### 1.2.1. Tariffs for industrial customers with smart meters

The industrial customers with smart meters smart meters installed in their facilities are charged according to the rates specified in the Table 6.

**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**

### 1.2.2. Flat rates for industrial customers without smart meters

Industrial customers who do not have smart meters installed in their facilities are billed at fixed rates, as detailed in the Table 7, until the smart meters are installed.

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

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**