



**STATISTICS IN ELECTRICITY SUB-SECTOR AS OF  
SEPTEMBER OF THE YEAR 2022**

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

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## 1. ELECTRICITY PRODUCTION

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

**Table 1: Trends of domestic generation, regional shared and imports (kWh) from Q3-21 to Q3-22**

<b>Pant name</b>	<b>Q3 2021</b>	<b>Q4 2021</b>	<b>Q1 2022</b>	<b>Q2 2022</b>	<b>Q3 2022</b>
Nyabarongo HPP	17,480,700	23,166,200	33,534,500	35,115,600	21,614,700
Ntaruka HPP	9,291,200	5,467,000	5,782,000	4,542,100	9,941,900
Mukungwa HPP	19,406,207	18,347,858	16,321,233	15,052,606	16,184,752
Jabana 1 TPP	1,004,900	241,900	89,890	103,900	329,970
Jabana 2 TPP	20,483,296	21,560,384	23,244,480	24,365,664	21,686,496
Nasho solar	1,316,603	1,130,329	1,045,845	1,148,008	1,296,332
Nyabahanga MHPP	145,588	79,049	100,988	181,580	128,878
Jali Solar	32,971	28,982	27,830	28,744	31,829
Gisenyi MHPP	2,162,763	2,037,844	2,528,977	2,156,060	1,911,557
Gihira MHPP	2,112,054	2,220,725	2,782,555	2,452,765	2,009,696
Rukarara 1 HPP	9,626,229	9,820,959	12,961,319	14,285,371	10,402,605
Rukarara 2 MHPP	2,902,269	3,028,081	3,559,654	3,863,849	3,068,415
Murunda MHPP	140,337	149,391	148,584	169,645	130,509
Rugezi MHPP	2,306,359	2,647,816	3,564,439	5,106,230	3,224,541
Keya MHPP	2,390,716	2,445,336	3,144,426	3,050,217	2,701,620
Cymbili MHPP	331,360	421,840	453,480	471,160	394,770
Mazimeru MHPP	743,975	765,448	788,235	756,361	600,105
Nkora MHPP	624,790	745,090	771,510	821,950	666,200
Musarara MHPP	692,952	450,413	783,139	784,281	676,722
Mukungwa 2 HPP	5,752,255	5,896,456	5,263,100	4,989,362	5,212,712
Giciye I HPP	2,939,147	3,478,312	3,998,022	4,223,413	2,891,134
GigaWatt Global	3,389,270	3,169,150	3,022,410	3,184,960	3,367,950
Janja MHPP	0.0	102,710	254,330	289,908	300,311
Kivuwatt	56,102,204	55,929,417	51,731,515	54,833,262	55,986,650
Giciye II HPP	3,364,187	3,901,291	4,655,095	4,515,756	3,175,870
Mutobo MHPP	388,998	403,767	398,214	405,979	403,522
Gaseke MHPP	187,691	297,842	323,668	225,241	189,687
So Energy Mukungwa 1	13,016,210	18,020,260	6,384,170	12,928,750	11,713,380
So Energy Masoro	8,097,450	12,969,900	5,004,510	10,337,760	6,657,330
So Energy Birembo	3,191,990	7,066,250	1,389,600	5,009,610	2,465,280
Gashashi	228,817	300,982	333,447	294,071	232,169
Rwaza-Muko MHPP	4,056,796	5,272,272	4,508,879	4,369,480	4,594,469
Rukarara V-Mushishito	2,017,823	2,424,053	4,574,729	7,557,945	6,128,387
Rubagabaga MHPP	230,716	296,953	508,437	470,463	88,642
Agatobwe MHPP	444,337	396,401	426,143	474,802	365,073
Nyirantaruko MHPP	977,116	917,227	1,619,564	1,537,606	626,500
Kigasa MHPP	184,212	141,627	263,231	279,607	222,841
Giciye III	7,901,403	9,438,935	11,048,392	10,317,571	7,222,952

<b>Pant name</b>	<b>Q3 2021</b>	<b>Q4 2021</b>	<b>Q1 2022</b>	<b>Q2 2022</b>	<b>Q3 2022</b>
Nyirabuhombo	1,010,150	782,795	794,351	660,537	834,337
Hakan QP	2,885,888	8,283,739	27,515,500	11,949,959	38,539,181
Gishoma PPP	21,865,800	5,610,825	0.0	2,783,825	16,156,800
<b>Total domestic generation</b>	<b>231,427,729</b>	<b>239,855,808</b>	<b>245,650,391</b>	<b>256,095,958</b>	<b>264,376,775</b>
Regional shared HPP	17,976,000	16,784,000	14,500,000	15,300,000	16,990,000
Imports	7,308,458	7,892,549	8,553,589	8,221,250	7,606,607
<b>Total</b>	<b>256,712,188</b>	<b>264,532,357</b>	<b>268,703,980</b>	<b>279,617,208</b>	<b>288,973,382</b>

**Source: EUCL-REG**

Electricity generated during the third quarter of the year 2022 was 288,973.382 MWh which shows a positive trend of 7.5% from the first quarter of 2022. The 91.5% of electricity generated in Q3 2022 were from domestic power plants, 5.9% from Regional Shared plants, and 2.6% were imported.

## 1.2. Electricity generation mix

The electricity produced in Rwanda is generated using different sources 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 2021 to Q3 2022**

<b>Electricity generation mix</b>	<b>Q3 2021</b>	<b>Q4 2021</b>	<b>Q1 2022</b>	<b>Q2 2022</b>	<b>Q3 2022</b>
Thermal (Fuel Oil)	17.84%	22.63%	13.44%	18.86%	14.83%
Hydro	45.97%	46.36%	52.36%	51.76%	42.61%
Methane	21.85%	21.14%	19.25%	19.61%	19.37%
Peat	9.64%	5.25%	10.24%	5.27%	18.93%
Solar	1.85%	1.64%	1.52%	1.56%	1.63%
Imports	2.85%	2.98%	3.18%	2.94%	2.63%

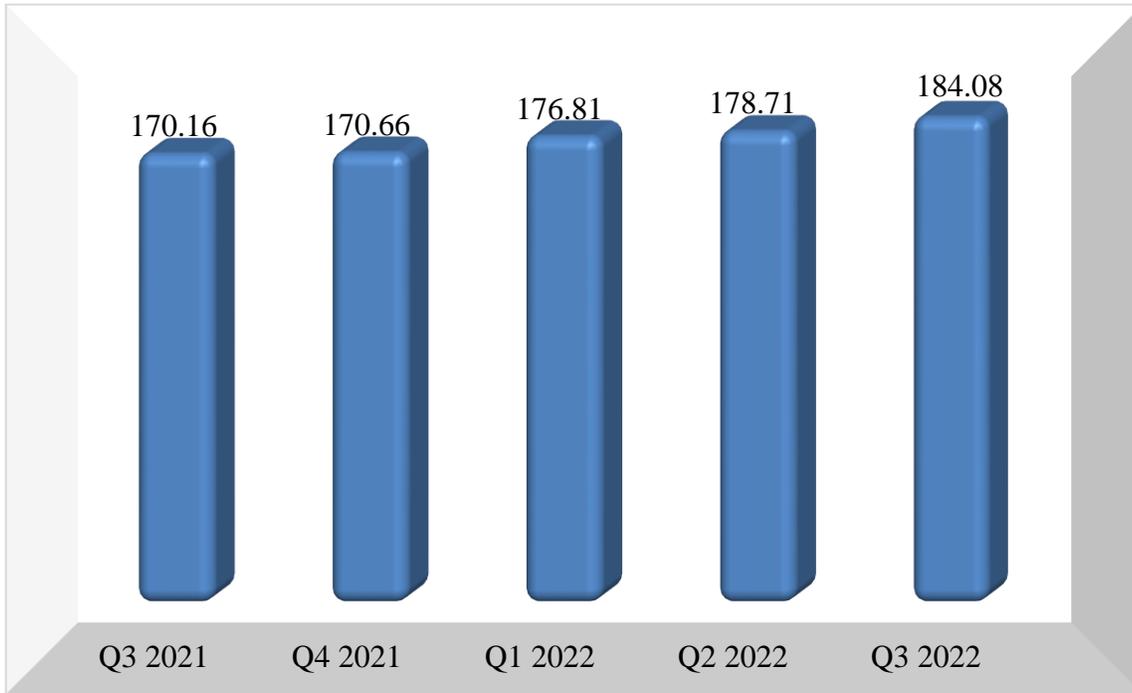
**Source: EUCL-REG**

The 42.61% of electricity generation during the third quarter 2022 is from Hydro, 19.37% from Methane Gas, 14.83% from Thermal, 18.93% from Peat, 1.63% from Solar energy and 2.63% is the imports. In general, the 44.24% of electricity generation in Q3 2022 is from renewable resources, 53.13% from non-renewables whereas 2.63% is imported electricity.

### 1.3. System peak demand

The system peak demand increased by 8.2% from the 3<sup>rd</sup> quarter 2021 to the third quarter of the year 2022 and the peak quarter over the last five quarters was quarter Three of 2022 with a peak demand of 184.08 MW as presented in the Figure 1.

**Figure 1: Trends of system peak demand (MW) from Q3 2021 to Q3 2022**

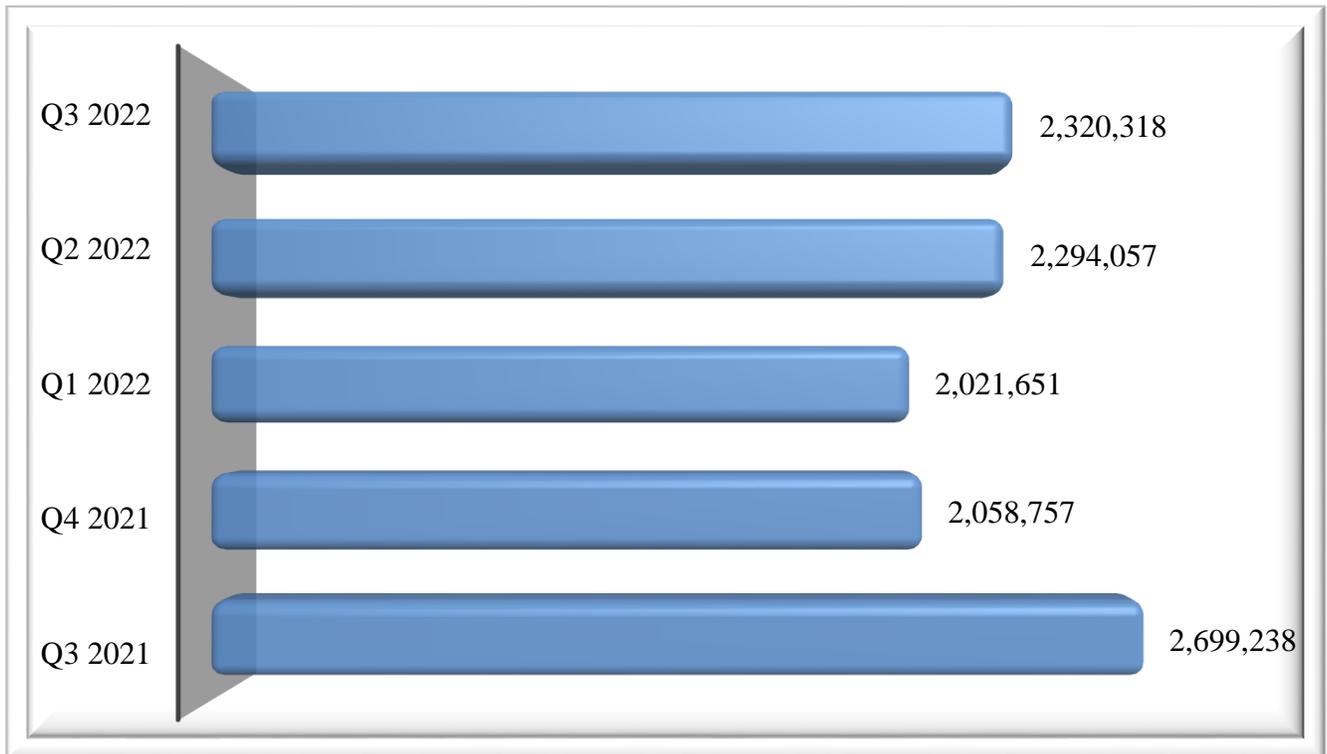


**Source: EUCL-REG**

## 2. EXPORTED ELECTRICITY

The exported electricity declined by 14.0% up to the third quarter of the year 2022 in comparison to the 3<sup>rd</sup> quarter 2021. The highest electricity exports recorded over the last five quarters was in quarter Three of 2021.

**Figure 2: Trends of exported electricity (kWh) from Q3 2021 to Q3 2022**



**Source: EUCL-REG**

### 3. ELECTRICITY SUPPLIED TO THE NATIONAL GRID

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

**Figure 3: Trends of electricity supplied to the national grid (kWh) from Q3 2021 to Q3 2022**



**Source: EUCL-REG**

The electricity supplied to the national grid by the Utility increased by 12.8% from the 3<sup>rd</sup> quarter 2021 to the 3<sup>rd</sup> quarter of the year 2022. Over the last five quarters, the total electricity supplied to the national grid was 1,347,145,094 kWh.

#### 4. ELECTRICITY SOLD DOMESTICALLY

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

**Table 3: Trends of electricity sold (kWh) per type of customer from Q3 2021 to Q3 2022**

<b>Customer category</b>	<b>Q3 2021</b>	<b>Q4 2021</b>	<b>Q1 2022</b>	<b>Q2 2022</b>	<b>Q3 2022</b>
Residential	39,899,058	41,230,960	41,439,354	42,964,053	46,930,009
Non-residential	45,765,755	48,877,348	50,308,145	53,986,535	55,425,840
Water pumping stations	9,871,011	9,354,975	8,818,407	9,524,843	10,529,093
Water treatment plants	11,813,891	11,579,426	11,558,127	12,369,768	13,098,140
Broadcasters	1,134,420	1,185,395	1,170,320	1,186,248	1,197,166
Health facilities	4,754,761	4,760,194	5,050,694	5,195,074	5,392,241
Telecom towers	12,723,264	12,659,231	12,824,575	13,303,249	13,462,241
Hotels	8,766,859	10,130,558	9,655,235	11,032,736	11,997,688
Commercial data centers	481,715	485,563	489,402	505,685	501,146
Industries	64,522,457	68,657,951	72,548,959	73,024,547	73,645,659

**Source: EUCL-REG**

During the 3<sup>rd</sup> quarter of year 2022, the 23.87% of the total electricity sold by Utility were to non-residential customers, 31.72% to industries, and 20.21% to residential customers and the remaining 24.20% were sold to water pumping stations, water treatment plants, broadcasters, health facilities, telecom towers, hotels, and commercial data centers.

## 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.

### 5.1. 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**

### 5.2. 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**