



**STATISTICS IN ELECTRICITY SUB-SECTOR AS OF JUNE 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 Q1 2021 to Q2 2022

Pant name	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Nyabarongo HPP	36,028,500	35,889,700	17,480,700	23,166,200	33,534,500	35,115,600
Ntaruka HPP	9,928,000	10,541,000	9,291,200	5,467,000	5,782,000	4,542,100
Mukungwa HPP	16,019,233	18,672,991	19,406,207	18,347,858	16,321,233	15,052,606
Jabana 1 TPP	0.0	0.0	1,004,900	241,900	89,890	103,900
Jabana 2 TPP	15,292,512	15,390,736	20,483,296	21,560,384	23,244,480	24,365,664
Nasho solar	1,059,719	1,226,372	1,316,603	1,130,329	1,045,845	1,148,008
Gishoma PPP	0.0	2,330,350	21,865,800	5,610,825	0.0	2,783,825
Nyabahanga MHPP	147,637	209,868	145,588	79,049	100,988	181,580
Jali Solar	27,552	29,534	32,971	28,982	27,830	28,744
Gisenyi MHPP	2,829,402	2,904,000	2,162,763	2,037,844	2,528,977	2,156,060
Gihira MHPP	3,067,491	2,913,243	2,112,054	2,220,725	2,782,555	2,452,765
Rukarara 1 HPP	13,878,429	13,612,772	9,626,229	9,820,959	12,961,319	14,285,371
Rukarara 2 MHPP	3,084,822	3,901,220	2,902,269	3,028,081	3,559,654	3,863,849
Murunda MHPP	149,993	161,032	140,337	149,391	148,584	169,645
Rugezi MHPP	2,425,668	2,856,196	2,306,359	2,647,816	3,564,439	5,106,230
Keya MHPP	2,941,868	3,001,431	2,390,716	2,445,336	3,144,426	3,050,217
Cymbili MHPP	434,810	431,940	331,360	421,840	453,480	471,160
Mazimeru MHPP	865,033	917,792	743,975	765,448	788,235	756,361
Nkora MHPP	958,560	890,780	624,790	745,090	771,510	821,950
Musarara MHPP	806,235	858,983	692,952	450,413	783,139	784,281
Mukungwa 2 HPP	4,704,037	5,526,498	5,752,255	5,896,456	5,263,100	4,989,362
Giciye I HPP	3,631,298	4,007,844	2,939,147	3,478,312	3,998,022	4,223,413
GigaWatt Global	3,035,810	3,387,250	3,389,270	3,169,150	3,022,410	3,184,960
Janja MHPP	0.0	0.0	0.0	102,710	254,330	289,908
Kivuwatt	54,690,583	52,480,658	56,102,204	55,929,417	51,731,515	54,833,262
Giciye II HPP	4,185,453	4,531,154	3,364,187	3,901,291	4,655,095	4,515,756
Mutobo MHPP	387,434	377,755	388,998	403,767	398,214	405,979
Gaseke MHPP	51,472	79,931	187,691	297,842	323,668	225,241
So Energy Mukungwa 1	2,201,470	6,006,460	13,016,210	18,020,260	6,384,170	12,928,750
So Energy Masoro	884,050	2,862,660	8,097,450	12,969,900	5,004,510	10,337,760
So Energy Birembo	153,200	1,106,900	3,191,990	7,066,250	1,389,600	5,009,610
Gashashi	337,897	326,161	228,817	300,982	333,447	294,071
Rwaza-Muko MHPP	4,290,890	5,305,527	4,056,796	5,272,272	4,508,879	4,369,480
Rukarara V-Mushishito	2,656,803	3,118,702	2,017,823	2,424,053	4,574,729	7,557,945
Rubagabaga MHPP	415,279	438,845	230,716	296,953	508,437	470,463
Agatobwe MHPP	102,534	230,099	444,337	396,401	426,143	474,802
Nyirantaruko MHPP	2,185,727	1,969,186	977,116	917,227	1,619,564	1,537,606
Kigasa MHPP	243,780	295,148	184,212	141,627	263,231	279,607

Pant name	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Giciye III	10,631,706	10,680,861	7,901,403	9,438,935	11,048,392	10,317,571
Nyirabuhombohombo	0.0	581,385	1,010,150	782,795	794,351	660,537
Hakan QP	278,129	1,665,172	2,885,888	8,283,739	27,515,500	11,949,959
Total domestic generation	205,013,016	221,718,135	231,427,729	239,855,808	245,650,391	256,095,958
Regional shared HPP	20,132,000	21,318,000	17,976,000	16,784,000	14,500,000	15,300,000
Imports	7,678,436	8,000,319	7,308,458	7,892,549	8,553,589	8,221,250
Total	232,823,453	251,036,454	256,712,188	264,532,357	268,703,980	279,617,208

Source: EUCL-REG

The total electricity generated in the second quarter of the year 2022 was 279,617.2 MWh which shows a positive trend from the first of 2022. The 91.6% of electricity generated in Q2 2022 were from domestic power plants, 5.5% from Regional Shared plants, and 2.9% were imported.

1.2. Electricity generation mix

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

Table 2: Trends of energy mix per electricity generation from Q1 2021 to Q2 2022

Electricity generation mix	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Thermal (Fuel Oil)	7.96%	10.10%	17.84%	22.63%	13.44%	18.86%
Hydro	63.36%	62.36%	45.97%	46.36%	52.36%	51.76%
Methane	23.49%	20.91%	21.85%	21.14%	19.25%	19.61%
Peat	0.12%	1.59%	9.64%	5.25%	10.24%	5.27%
Solar	1.77%	1.85%	1.85%	1.64%	1.52%	1.56%
Imports	3.30%	3.19%	2.85%	2.98%	3.18%	2.94%

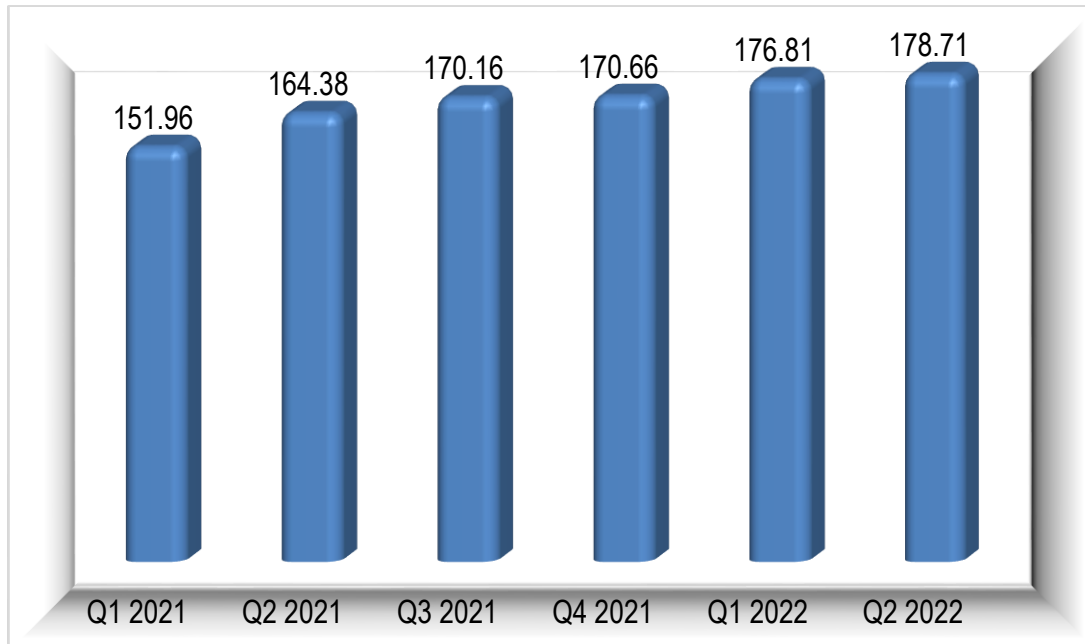
Source: EUCL-REG

The 51.76% of electricity generation in the second quarter 2022 is from Hydro, 19.61% from Methane Gas, 18.86% from Thermal, 5.27% from Peat, 1.56% from Solar energy and 2.94% is the imports. In general, the 53.32% of electricity generation in Q2 2022 is from renewable resources, 43.74% from non-renewables whereas 2.94% is imported electricity.

1.3. System peak demand

The system peak demand increased by 17.6% from the first quarter 2021 to the second quarter of the year 2022 and the peak quarter over the last six quarters was quarter two of 2022 with a peak demand of 178.71 MW as presented in the Figure 1.

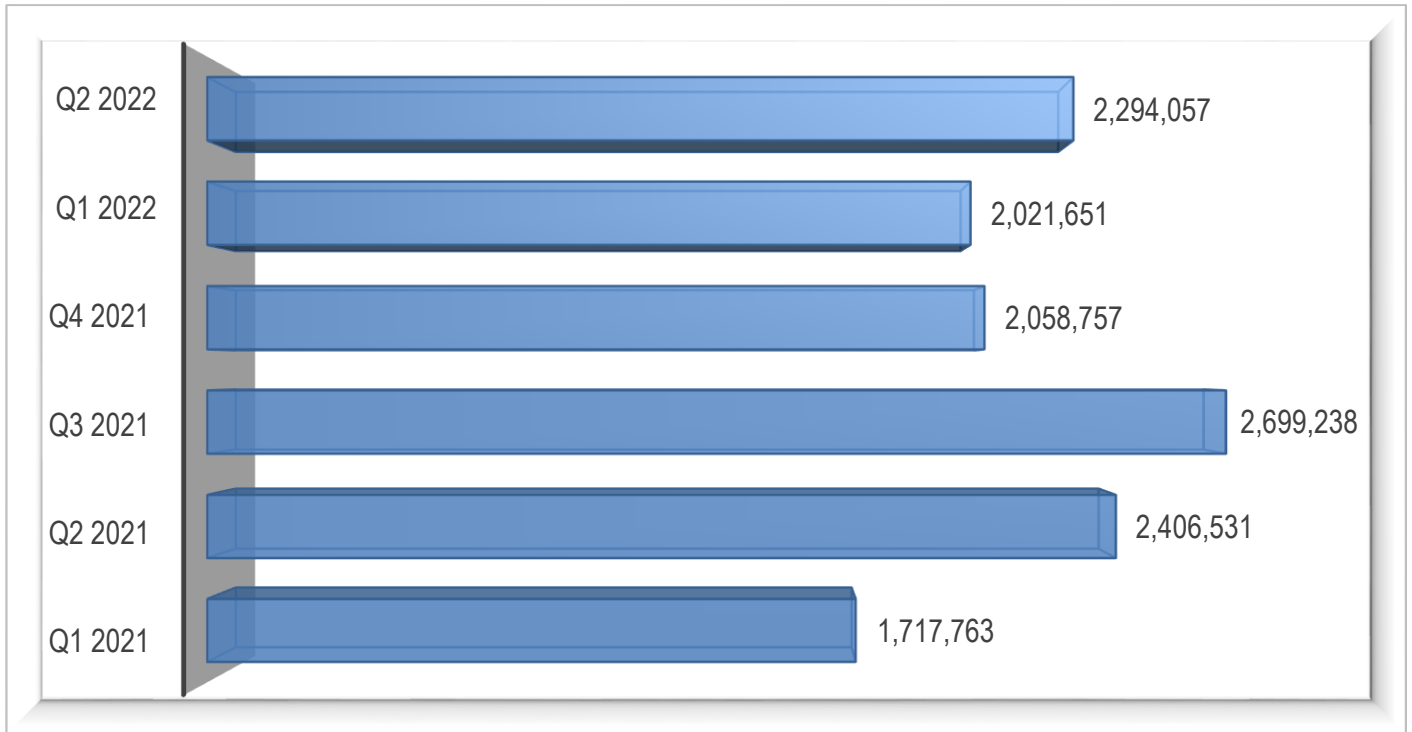
Figure 1: Trends of system peak demand (MW) from Q1 2021 to Q2 2022



Source: EUCL-REG

2. EXPORTED ELECTRICITY

Figure 2: Trends of exported electricity (kWh) from Q1 2021 to Q2 2022



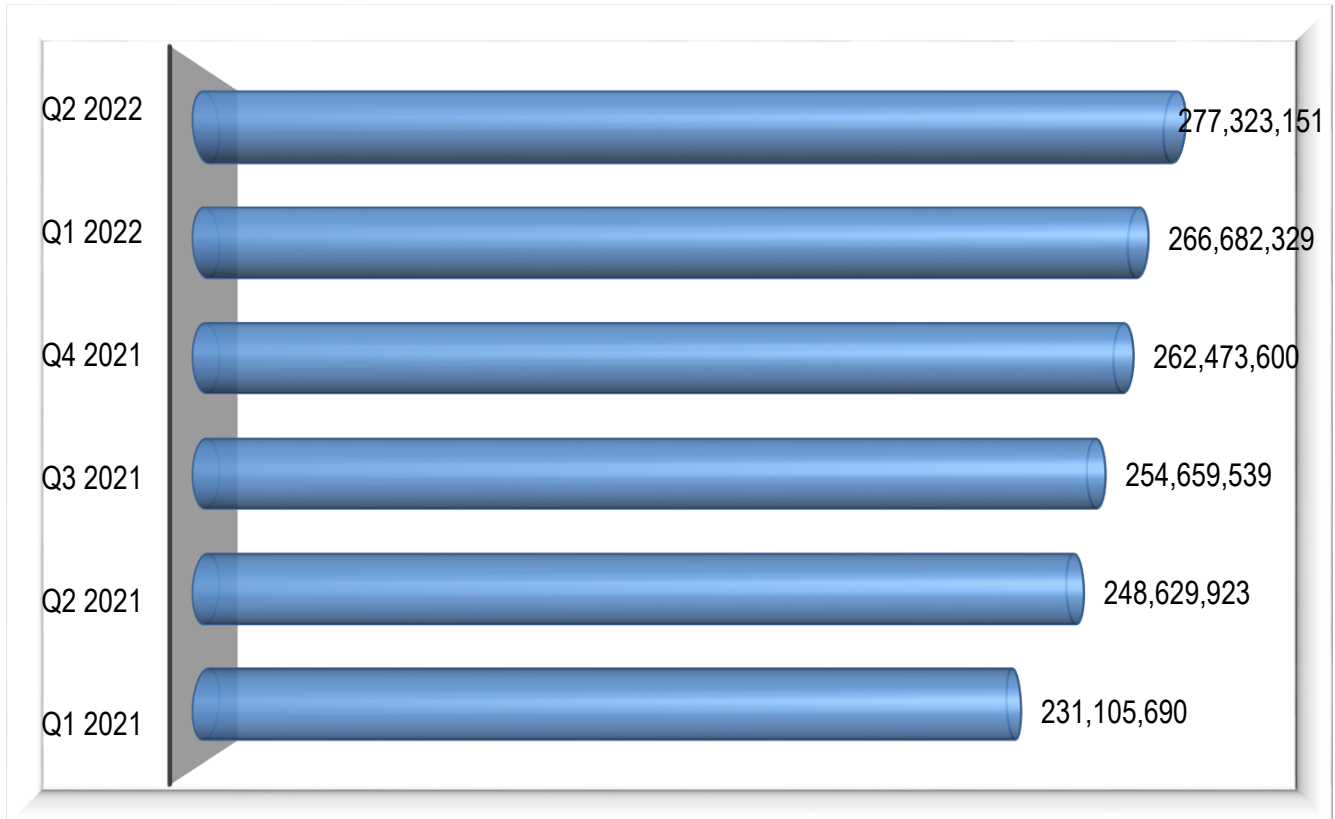
Source: EUCL-REG

In the last six quarters, the highest electricity exports recorded was in the third quarter of 2021 with an increase of 57.1% compared to the first quarter of the year 2021. The exported electricity increased by 33.5% from the first quarter 2021 to the second quarter of the year 2022.

3. ELECTRICITY SUPPLIED TO THE NATIONAL GRID

The figure below shows 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 Q1 2021 to Q2 2022



Source: EUCL-REG

The electricity supplied to the national grid by the Utility increased by 20.0% from the first quarter 2021 to the second quarter of the year 2022. In the last six quarters, the total electricity supplied to the national grid was 1,540,874,232 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 Q1 2021 to Q2 2022

Customer category	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Residential	35,224,269	37,243,282	39,899,058	41,230,960	41,439,354	42,964,053
Non-residential	45,460,098	49,924,096	45,765,755	48,877,348	50,308,145	53,986,535
Water pumping stations	8,524,988	8,912,379	9,871,011	9,354,975	8,818,407	9,524,843
Water treatment plants	9,381,022	10,342,683	11,813,891	11,579,426	11,558,127	12,369,768
Broadcasters	1,132,019	1,151,754	1,134,420	1,185,395	1,170,320	1,186,248
Health facilities	4,044,308	4,318,416	4,754,761	4,760,194	5,050,694	5,195,074
Telecom towers	11,576,863	12,083,952	12,723,264	12,659,231	12,824,575	13,303,249
Hotels	6,833,785	8,828,324	8,766,859	10,130,558	9,655,235	11,032,736
Commercial data centers	417,862	460,071	481,715	485,563	489,402	505,685
Industries	59,514,364	63,530,561	64,522,457	68,657,951	72,548,959	73,024,547

Source: EUCL-REG

In the last six quarters, the 24.04% of the total electricity sold by Utility were to non-residential customers, 32.81% to industries, and 19.44% to residential customers and the remaining 23.71% 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 21st 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