



**KEY STATISTICS IN ELECTRICITY SUB-SECTOR AS OF
DECEMBER 2015**

**Prepared by:
Economic Regulation Unit**

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1. SUMMARY

This report is composed of data from Energy Sector and the period under review is from October to December 2015. The total number of electricity subscribers increased by 3.7 % from 541,053 recorded in the third quarter 2015 to 562,271 recorded in this quarter under review. The City of Kigali has the largest subscriber's share of 33% followed by the Eastern Region that has 22%. The Western province has 17%, the Southern Province has 16% share and the Northern Province has 12% in the quarter under review.

Electricity as a primary source of lighting in Rwanda has continued to show an increasing trend in the number of subscribers. This is attributed to the government objective of increasing accessibility of this utility to citizens both in rural and urban areas. Secondary, it is partly attributed to the increasing new infrastructure in terms of new buildings coming up in the City of Kigali and other parts of the Country.

In the fourth quarter 2015, national electricity production both on grid and off grid decreased by 0.8% from 130,311,131 kWh recorded in the third quarter to 128,294,282 kWh recorded in this quarter, this decrease is backed by the reduction in the production of on grid power plant production despite the rise in off grid production.

Electricity imports decreased by 14% from 22,103,690 kWh for the third quarter 2015 to 19,004,862 kWh in the fourth quarter 2015. The variations in Electricity imports and exports depend upon the need of electricity of the demanding areas. Electricity exports in this quarter under review increased from 14,000kWh recorded in the third quarter 2015 to 538,767 kWh in the fourth quarter 2015.

In total there are 18 licensed Independent Power Producers of which 5 have full license and 13 have provisional licenses in this quarter.

2. ELECTRICITY SUBSCRIPTIONS

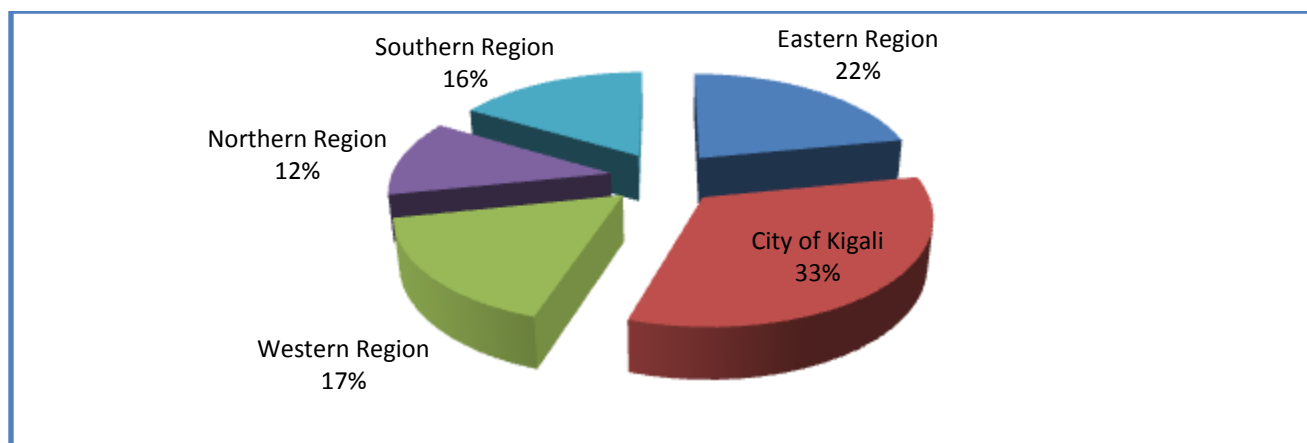
Table 1: Trend in electricity subscribers by Region per quarter in 2015

Name of the region	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarterly % Increase 2015
Eastern Region	110,661	114,990	118,955	123,268	3.6
City of Kigali	174,117	177,988	181,576	185,676	2.3
Western Region	82,376	85,452	89,882	94,362	5.0
Northern Region	57,455	59,941	62,686	66,186	5.6
Southern Region	80,722	83,969	87,954	92,779	5.5
Total	505,331	522,340	541,053	562,271	

Source: EUCL-REG

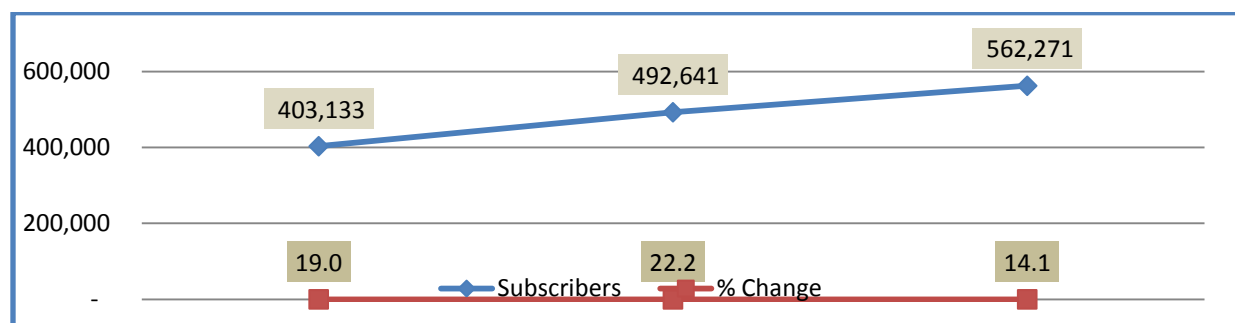
The total number of subscribers increased from 541,053 in the 3rd quarter 2015 to 562,271 in the 4th quarter 2015, this represents an increase of 3.9%. This increase is mainly attributed to the Government Electricity Rollout plan which is sponsored by Electricity Access Rollout Program (EARP) and the new infrastructure that comes up.

Figure 1: Distribution of customers across Regions and the City of Kigali as of December 2015



Source: EUCL-REG

Figure 2: Trend in electricity subscriptions from 2013 -2015



Source: EUCL-REG

3. ELECTRICITY PRODUCTION

1. On grid production

Table 2: On grid electricity production per quarter in 2015 in kWh

Plant	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Ntaruka	8,411,000	9,758,000	10,788,900	7,465,000	36,422,900
Mukungwa	7,094,890	-	0	0	7,094,890
Gisenyi	1,260,262	1,803,744	1,477,476	2,013,477	6,554,959
Gihira	1,928,520	2,171,460	1,689,998	2,274,010	8,063,988
Rukarara 1	9,763,000	13,465,664	8,122,218	12,001,100	43,351,982
Murunda	157,615	160,790	99,984	131,124	549,513
Rugezi	-	-	365,493	507,750	873,243
Keya	349,600	242,501	387,300	1,634,627	2,614,028
Cymbili	95,000	105,600	0	42,393	242,993
Mazimeru				239,548	239,548
Nkora	456,700	460,400	107,200	206,903	1,231,203
Jabana I	2,793,530	3,418,400	10,753,010	3,970,700	20,935,640
Jabana II	25,732,912	21,681,668	32,393,569	19,590,544	99,398,693
Aggreko Gikondo	2,514,081	0	0	0	2,514,081
Methane Gas	5,427,418	3,958,697	4,149,967	2,736,205	16,272,287
Jali Solar	75,190	36,974	70,255	52,712	235,131
Musarara	798,224	860,475	376,419	245,440	2,280,558

Mukungwa 2	627,862	2,682,405	2,564,496	4,236,828	10,111,591
Rukarara 2	3,134,416	3,501,149	2,641,241	2,882,060	12,158,866
Giciye	2,524,079	3,354,901	2,147,199	1,818,781	9,844,960
GigaWatt Global	3,071,736	3,029,686	3,802,201	3,103,140	13,006,763
Nyabarongo 1	31,483,000	47,933,200	19,926,100	38,825,900	138,168,200
SES KSEZ	14,655,347	12,454,865	21,155,138	12,156,440	60,421,790
Total	122,354,382	131,080,579	123,018,164	116,134,681	492,587,806

Source: EUCL-REG

The total on grid electricity production decreased by 5.5% from 123,018,164 kWh recorded in the third quarter 2015 to 116,134,681 kWh recorded in the fourth quarter 2015.

2. Off grid production

Table 3: Off grid power plants and their Production per quarter 2015 in kWh

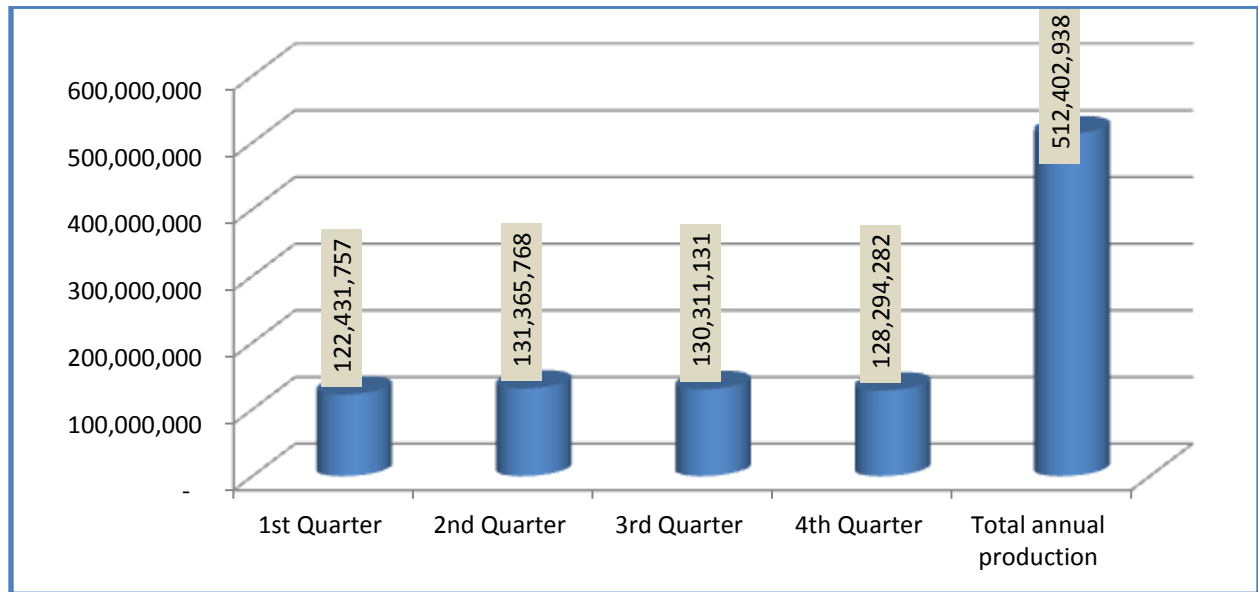
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Agatobwe	25,313	37,807	33,146	30,553	126,819
Mutobo	46,295	27,660	42,483	24,158	140,596
Nyamyotsi 1			7,226	1,832	9057.5
Nyamyotsi2	5,768	1,499	2,697	-	9,964
SES CIMERWA		218,223	7,207,415	12,103,058	19,528,696
Total	77,376	285,189	7,292,967	12,159,601	19,815,133

Source: EUCL-REG

Electricity off-grid production increased from 12,159,601kWh recorded in 3rd quarter 2015 to 7,292,967kWh recorded in the 4th quarter 2015. This increase is attributed to SES CIMERWA power plant that increased its production.

3. Total national production

Figure 3: Trend in Electricity National Production per quarter in kWh



4. ELECTRICITY IMPORTS AND EXPORTS

1. Import

Table 4: Imported Electricity per quarter 2015 per kWh

Plant name/Tie point	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Ruzizi I	6,227,440	6,247,230	4,551,690	6,272,800	23,299,160
Ruzizi II	14,902,000	16,430,000	17,552,000	12,212,000	61,096,000
Kabale (UEB)	1,010,291	880,255	0	520,062	2,410,608
Total	22,139,731	23,557,485	22,103,690	19,004,862	86,805,768

Source: EUCL-REG

Total electricity imports in this quarter under review decreased from 22,103,690kWh for the 3rd quarter 2015 to 19,004,862kWh in the 4th quarter 2015, this represents a decrease of 14%.

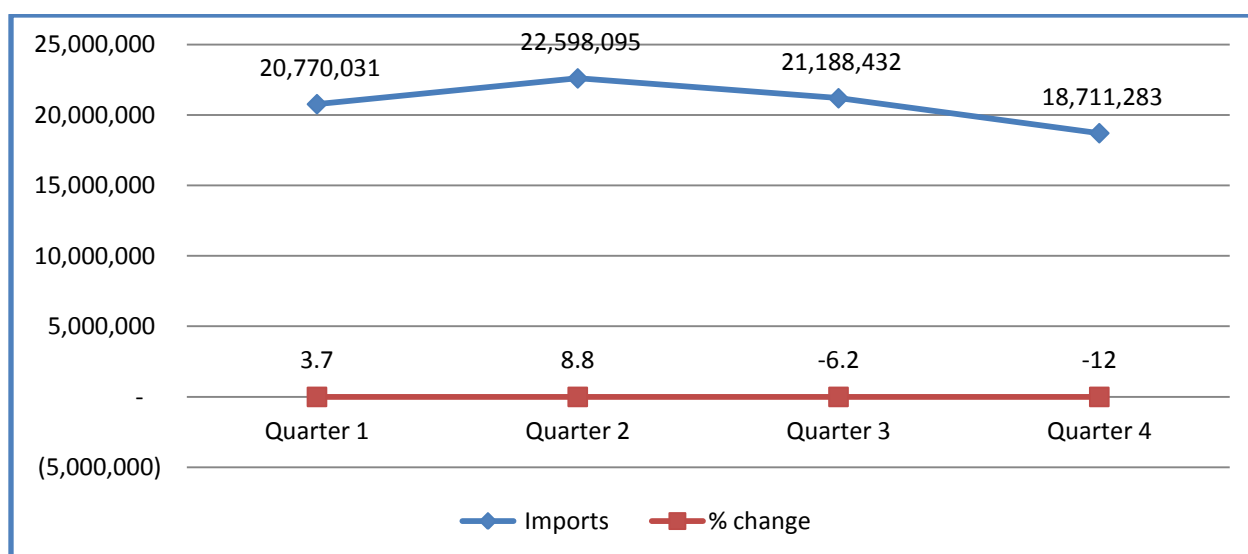
2. Exports

Table 5: Exported Electricity per quarter 2015 per kWh

	Tie point	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
1	Cyanika - Gisoro	1,307,700	953,390	0	532,767	2,793,857
2	Gisenyi - Goma	-	-	0	-	0
3	Mururu II	62,000	6,000	14,000	6,000	82,000
	Sub total	1,369,700	959,390	14,000	538,767	2,875,857

Source: EUCL-REG

Figure 4: Net electricity imports per quarter in 2015



Source: EUCL-REG

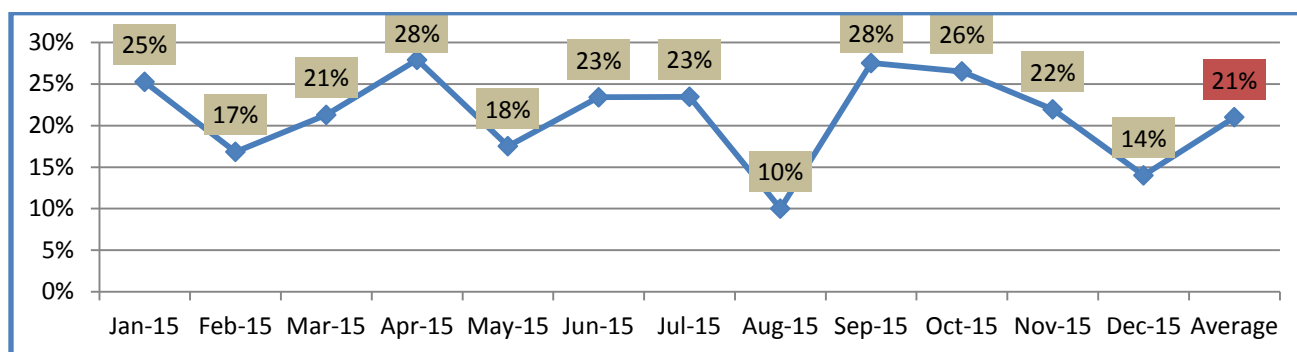
Net electricity imports are the difference between electricity exports and imports. In this quarter, net electricity imports decreased by 16.4% from 22,089,690 kWh recorded in the third quarter 2015 to 18,466,095 kWh recorded in the fourth quarter 2015. This decrease is attributed to the decrease in electricity imports and the increase in electricity exports. As earlier mentioned electricity imports and exports varies depending on the need of the demanding area.

Table 6: Total electricity Supplied, Billed and the Difference per quarter in 2015

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Supplied	144,509,489	148,170,000	151,499,575	152,183,124	596,362,187
Billed	113,794,486	114,038,167	120,786,187	120,175,274	468,794,114
Difference	20,437,974	34,131,833	30,713,388	32,007,850	117,291,044

Source: EUCL-REG

Figure 5: Technical and non Technical Losses from January to December 2015



Source: EUCL-REG

Table 7: Applicable end user tariffs 2015

Customer category	Existing tariff			New tariff, VAT exclusive Frw/ Kwh		
	Demand+ Energy Rwf/Kwh	Standing Frw/ Kwh	Reactive Frw/Kwh	Demand + Energy Rwf/Kwh	Standing Frw/ Kwh	Reactive Frw/Kwh
Medium Voltage	126	123	126	126	10,000	126
Low Voltage (Residential & Non Residential)	182	-	-	134	-	-

Source: N° 001/BD/ICA-CLIA/RURA 2015

5. INDEPENDENT POWER PRODUCERS (IPPs)

There are two types of licenses issued in the energy sector, the provisional license and full license. And the following are issued licenses accordingly;

Table 8: Licensed operators with full licenses (generation)

	NAME OF THE LICENSED COMPANY	PLANT NAME	Generation Capacity (MW)	Issuance Date	Expiry Date
1	NGALI ENERGY LTD	RUKARARA HPP	9	27/09/2013	27/09/2033
2	GIGAWATT GLOBAL LTD	RWAMAGANA SOLAR	8.5	05/02/2014	05/02/2039
3	REGREPOWER LTD	KAVUMU MHHP	0.38	16/04/2014	16/04/2029
4	YUMN LTD	AKANYARU PEAT	80	15/09/2014	15/09/2039
5	Kivuwatt Ltd	Kivuwatt	25	30/07/2015	30/07/2040

Source: RURA database

Table 9: Provisional Licensed operators

	NAME OF THE LICENSED COMPANY	PLANT NAME	CAPACITY (MW)
1	NGALI ENERGY LTD (6 months extension)	BASE I BASE II NGORORERO	2.9 2.9 2.4
2	RWANDA MOUNTAIN TEA LTD	GICIYE II	2
3	NOVEL ENERGY LTD (6 months extension)	NYAGATARE BIOMASS	0.07
4	NGALI ENERGY LTD (6 months extension)	RWONDO NTARUKA A	2.6 2
5	NOVEL ENERGY LTD (6 months extension)	GASEKE	0.5
6	LED SOLUTIONS & GREEN ENERGY LTD	KIGASA	0.195
7	DC HYDROPOWER LTD	RWAZA I	2.6

Source: RURA database