
**END USER TARIFFS FOR VARIOUS CONSUMER
CATEGORIES ELECTRICITY TAXES, LEVIES AND
SUBSIDIES, DEMAND AND SUPPLY BALANCES FOR EAC
AS AT DECEMBER 2019**

© 2020 Energy Regulators Association of East Africa

8th Floor, NSSF Mafao House, Old Moshi Road

P.O. Box 1669, Arusha, Tanzania

Website: <http://www.energyregulators.org>

Tel: +255 27 2520 170/1

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1 Introduction

EREA, through the Economic Portfolio Committee (EPC), has continued to work together to provide information shareable amongst the countries in the EAC. In this report, two critical comparisons have been developed. In essence, these are: updated end-user tariffs for various consumer categories, Electricity Taxes, Levies and Subsidies, and Demand and Supply in the East Africa Community in December 2019.

2 Economic Portfolio Committee

The EPC reviews the energy policies, planning, tariffs, market operations, research and information sharing amongst member institutions in the EAC. The experts are drawn from all the regulatory agencies in the member countries, and the report is validated during the Executive and General Assembly sessions.

3 Update on the end-user tariffs for various consumer categories in each member country

Table 1 provides a comparison of the end-user tariff for available consumer categories in East Africa Community countries.

Table 1: End User Tariff for each member country excluding Taxes & Levies as of December 2019

Category	Kenya	Rwanda	Tanzania	Uganda	Burundi	Zanzibar
	US¢/kWh	US¢/kWh	US¢/kWh	US¢/kWh	US¢/kWh	US¢/kWh
Domestic Lifeline	12.7	9.9	4.38	6.7	4.7	3.4
Domestic Other	18.7	20.3	15.33	20.0	23.8	20.6
Small Commercial	18.5	21.4	12.79	17.7	17.3	8.2
Medium Industries	14.0	10.9	8.54	15.8	18.2	12.4
Large Industries	13.1	10.7	6.66	9.7	12.4	7.7
Extra Large industries				8.1		
Street Lighting	10.2	20.6	12.79	9.9	N/A	11.4

Table 2: Electricity Taxes, Levies and Subsidies in each member Country as at December 2019

Assumption	Kenya	Rwanda	Tanzania	Uganda	Burundi	Zanzibar
Lifeline Units (KWh)	100		75	15		50
Exchange Rate/USD	102	898.5	2240.9	3,728.2	1750	2243
VAT	16%	18%	18%	18%	18%	18%
Regulator Levy on Electricity Consumption	KShs 0.03 /kWh	0.3%	1%	0.3%	0.5% from the operator	0.5% Proposed
Water Levy	KShs 0.05 /kWh for all hydro plant above 1MW	N/A	N/A	N/A	N/A	N/A
RE Levy	5%	N/A	3%	5%	N/A	N/A
Subsidies	a) Geothermal Steam Charge (Drilling) b) CAPEX for some transmission lines	Lump-sum for targeted customers b) CAPEX for some projects of generation	Capex for some generation, transmission and distribution project	a) Refinancing Bujagali power plant tariffs from 13 US¢/kWh to 8.5 US¢/kWh	Capex for some transmission lines	Lump-sum allocation each year

Assumption	Kenya	Rwanda	Tanzania	Uganda	Burundi	Zanzibar
		n, transmission and distribution	s.	b) Capacity payments for grid-connected thermal plants c) CAPEX for some transmission lines		

Note: All percentages are on consumption

4 Update on the status of demand and supply in each member country as at December 2019

Tanzania Demand-Supply Balance

Year	Available Capacity - MW	Demand - MW	Balance - MW	Reserve Margin
2019	1604.6	1156.0	448.6	28%
2020	1604.6	1234.0	370.6	23%
2021	1604.6	1308.0	296.6	18%
2022	1629.5	1394.0	235.5	14%
2023	2994.2	1490.0	1504.2	50%
2024	4237.2	1594.3	2642.9	62%
2025	4237.2	1705.9	2531.3	60%
2026	4237.2	1825.3	2411.9	57%
2027	4237.2	1953.1	2284.1	54%
2028	4237.2	2089.8	2147.4	51%

Year	Available Capacity - MW	Demand - MW	Balance - MW	Reserve Margin
2029	4237.2	2236.1	2001.1	47%
2030	4237.2	2392.6	1844.6	44%

¹ Projected Demand from 2019 to 2023 are based on Final Cost of Service (CoSS) Study, dated 15th December 2018

Annual GDP Growth Rate 7% as per the CoSS Report

Assumptions:

Projected Maximum Demand figures from 2019 to 2023 are from the final Cost of Service Study Report, dated 15th December 2018, which are based on the GDP growth rate of 7%. This growth is maintained until 2030.

Available capacity is based on projections of installed capacity in the Cost of Service Study report and assumes the current availability for each technology and the additional capacity as follows:

- Rusumo 27MW Hydro Power Plant will be completed in 2022;
- Rufiji HPP Phase 1 (1048MW), Malagarasi HPP (45MW), Kakono HPP (87MW) and Somanga Fungu GPP (300MW) will be completed in 2023;
- Mtwara GPP (300MW) and Rufiji HPP Phase 2 (1048MW) will be completed in 2024

The installed capacity by 2024 is maintained until the year 2030.

Uganda Demand-Supply Balance

Year	Available Capacity - MW	Demand - MW	Balance - MW	Reserve Margin
2019	956	710	246	25.7%
2020	1,361	774	587	43.1%
2021	1,390	844	546	39.3%
2022	1,462	920	542	37.1%
2023	1,506	1,002	503	33.4%
2024	1,653	1,093	561	33.9%
2025	1,867	1,191	676	36.2%
2026	2,487	1,298	1,189	47.8%
2027	2,513	1,415	1,099	43.7%
2028	2,609	1,542	1,067	40.9%
2029	2,609	1,681	928	35.6%

Year	Available Capacity - MW	Demand - MW	Balance - MW	Reserve Margin
2030	2,609	1,832	777	29.8%

Kenya Demand-Supply Balance

Year	Available Capacity (MW)	Demand (MW)	Balance (MW)	Reserve Margin
2019	2712	1912	800	29.50%
2020	3079	2103	976	31.70%
2021	3032	2234	798	26.32%
2022	3321	2421	900	27.10%
2023	3624	2586	1038	28.64%
2024	4900	2764	2136	43.59%
2025	4900	2989	1911	39.00%
2026	4900	3234	1666	34.00%
2027	4900	3441	1459	29.78%
2028	4900	3720	1180	24.08%
2029	4900	3974	926	18.90%
2030	4900	4244	656	13.39%

Zanzibar Demand-Supply Balance

Year	Available Capacity (MW)	Demand (MW)	Balance (MW)	Reserve Margin
2019	116.2	82.95	33.25	29%
2020	129.7	88.75	40.95	32%
2021	139.7	94.96	44.73	32%
2022	147.7	101.61	46.09	31%
2023	155.7	108.73	46.97	30%
2024	157.5	116.34	41.16	26%
2025	165.0	124.48	40.52	25%
2026	165.0	133.20	31.81	19%
2027	165.0	142.52	22.48	14%
2028	165.0	152.49	12.51	8%
2029	167.5	163.17	4.33	3%
2030	167.5	174.59	-7.09	-4%

Rwanda Demand-Supply Balance

For the available capacity, the non-provided values from 2020 to 2030 have not been projected; however, it was adopted that the reserve margin should not go below 15%.

Year	Installed Capacity (MW)	Demand (MW)	Balance (MW)	Reserve Margin (%)
2019	225.5	140.6	84.9	37.65%
2020	262.88	162	100.88	38.37%
2021	287.5	175	112.5	39.13%
2022	351.36	189	162.36	46.21%
2023	353	204	149	42.21%
2024	405.86	220	185.86	45.79%
2025	405.86	238	167.86	41.36%
2026	454.19	257	197.19	43.42%
2027	479.19	277	202.19	42.19%
2028	479.19	300	179.19	37.39%
2029	493.09	324	169.09	34.29%
2030	532.89	350	182.89	34.32%

Burundi Demand-Supply Balance

update ongoing

5 Regional Demand and Supply Balance

Year	Kenya			Uganda			Tanzania			Rwanda			Zanzibar			EREA Region		
	Available SS (MW)	Demand (MW)	Balance (MW)	Available SS (MW)	Demand (MW)	Balance (MW)	Available SS (MW)	Demand (MW)	Balance (MW)	Available SS (MW)	Demand (MW)	Balance (MW)	Available SS (MW)	Demand (MW)	Balance (MW)	Available SS (MW)	Demand (MW)	Balance (MW)
2019	2,712	1,912	800	956	710	246	1,605	1,156	449	226	141	85	116	83	33	5,614	4,002	1,613
2020	3,079	2,103	976	1,361	774	587	1,605	1,234	371	263	162	101	130	89	41	6,437	4,362	2,075
2021	3,032	2,234	798	1,390	844	546	1,605	1,308	297	288	175	113	140	95	45	6,454	4,656	1,798
2022	3,321	2,421	900	1,462	920	542	1,630	1,394	236	351	189	162	148	102	46	6,912	5,026	1,886
2023	3,624	2,586	1,038	1,506	1,002	503	2,994	1,490	1,504	353	204	149	156	109	47	8,633	5,391	3,241
2024	4,900	2,764	2,136	1,653	1,093	561	4,237	1,594	2,643	406	220	186	158	116	41	11,354	5,788	5,567
2025	4,900	2,989	1,911	1,867	1,191	676	4,237	1,706	2,531	406	238	168	165	124	41	11,575	6,248	5,327
2026	4,900	3,234	1,666	2,487	1,298	1,189	4,237	1,825	2,412	454	257	197	165	133	32	12,243	6,748	5,496
2027	4,900	3,441	1,459	2,513	1,415	1,099	4,237	1,953	2,284	479	277	202	165	143	22	12,294	7,229	5,067
2028	4,900	3,720	1,180	2,609	1,542	1,067	4,237	2,090	2,147	479	300	179	165	152	13	12,390	7,804	4,586
2029	4,900	3,974	926	2,609	1,681	928	4,237	2,236	2,001	493	324	169	168	163	4	12,407	8,378	4,029
2030	4,900	4,244	656	2,609	1,832	777	4,237	2,393	1,845	533	350	183	168	175	7	12,447	8,993	3,453