



UETCL REVENUE REQUIREMENTS FOR THE MYT PERIOD 2023 -2025



STRUCTURE OF THE PRESENTATION

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1. UETCL AT A GLANCE

UETCL is a Limited Liability Company owned by Government

Vision:
Electricity Transmission for Sustainable Regional Development

Mission:
To Buy, Sell and Transmit Quality Bulk Power

Bulk power supply

Operation of high voltage transmission grid

System Operator

Power import and export

Public Infrastructure Provider

Is a Government Implementing Agency for grid expansion projects across the country

2. STRATEGIC FOCUS AREAS (CBP 2019/20 -2023/24)

Sustainable financial growth

Robust human capital development

Accelerated grid infrastructure development and stimulation of demand

Security of power supply and regional cooperation

Efficient business processes

3. POWER SUPPLY AND SALES HIGHLIGHTS

PARTICULARS	2019/20(A)	2020/21(A)	2021/22(P)
Maximum system Demand(MW)	729	747	816
Maximum Domestic Demand(MW)	669	690	756
Installed Capacity	1,235	1,251	1350
Annual% Growth in peak max system demand		3%	9%
Annual% Growth in peak max Domestic demand		3%	10%
Annual% Growth in Installed capacity		1%	8%
Summary of Energy Purchase and Sales in GWh			
Narration	2019/20(A)	2020/21(A)	2021/22(P)
Units Purchased (GWh)	4,330	4,721	5295
Units Sold (GWh)	4,171	4,537	5056
Transmission Losses - adjusted (%)	3.51%	3.77%	4.36%
Efficiency (%)	96.49%	96.23%	96.64%

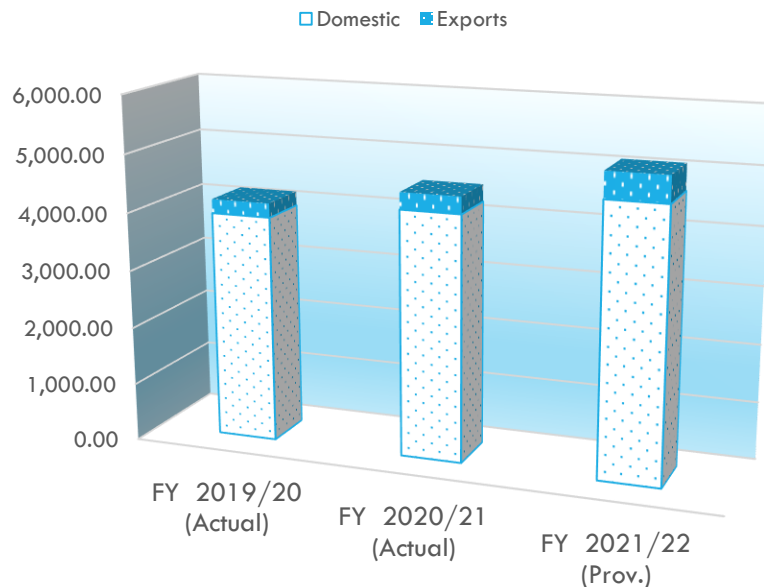
ENERGY PURCHASE SUMMARY (UNITS AND COSTS)

DISPATCH CATEGORY	FY 2019/20 (A)	FY 2020/21 (A)	FY 2021/22 (Prov.)	FY 2020/21 (A)	FY 2021/22 (Prov.)
	Units GWh			Growth (%)	
Large hydro	3,341	3,769	4,111	13	9
Thermal	77	60	47	(22)	(21)
Mini- Hydro	604	575	661	(5)	15
Co-generation	206	199	352	(4)	78
Solar	80	97	101	21	4
Imports	22	22	22	1	(1)
Total	4,330	4,721	5,295	9	12
	Amount (Ushs Bn)			Growth (%)	
Large hydro	731	775	831	6	7
Thermal	73	59	42	(19)	(28)
Mini- Hydro	229	213	213	(7)	(0)
Co-generation	73	69	92	(5)	33
Solar	33	40	40	20	(0)
Imports	10	9	8	(8)	(12)
Total	1,149	1,165	1,226	1	5

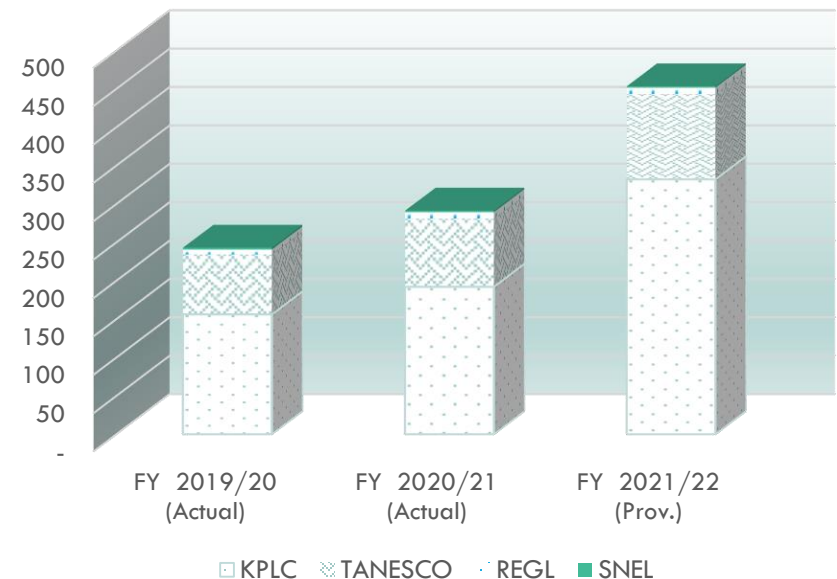
ENERGY SALES SUMMARY (UNITS GWH)

DISPATCH CATEGORY	FY 2019/20 (A)	FY 2020/21 (A)	FY 2021/22 (Prov.)	FY 2020/21 (A)	FY 2021/22 (Prov.)
	Units GWh			Growth (%)	
Domestic	3,928	4,246	4,603	8	8
Exports	243	291	453	20	56
Total	4,171	4,537	5,056	9	11

Energy Sales units (GWh) during the previous MYT units (GWh)



Trend of Exports during the previous MYT units (GWh)



4. KEY ACHIEVEMENTS -COMMISSIONED PROJECTS

- ❑ Expansion of the grid to Karamoja sub region through completion of Opuyo-Moroto.
- ❑ The transformation capacity at Opuyo substation was upgraded through the installation and commissioning of two 40MVA transformers (from existing 10MVA) and extension of 33kv bus bar.
- ❑ Energized the 132kV Opuyo - Lira 115km line.
- ❑ Extended the transmission grid to the Industrial Park substations of Namanve-South (3x63MVA, 132/33kV), Mukono North (3x63MVA, 132/33kV), Iganga (2x40MVA, 132/33kV), Kapeeka (1x20MVA, 132/33kV) and associated 52.5km 132kV Kawanda – Kapeeka line).
- ❑ Completion of the Bujagali substation extension.
- ❑ Successfully tested the Uganda-Rwanda 220kV Interconnection line.
- ❑ Successfully commissioned Karuma Kawanda 400kV.
- ❑ Successfully commissioned the Karuma Olwiyo 132kV Transmission line.

5. LIST OF ONGOING PROJECTS

Transmission Lines	Associated Substations	Voltage Level
42.5km 132kV Matuga - Kasana	Kasana (1x20MVA 132/33kV)	132/33kV
147.48km 132kV Tororo - Opuyo		132kV
15km 132kV Namanve South Luzira	Luzira (3X40MVA 132/33kV)	132/33kV
Mirama Substation under Siemens	Mirama SS (50.4/60MVA 220/132kV)	220/132kV
0.5km 132kV Tororo- Lessos T-off to Sukulu SS	Sukulu Phosphate (2X80MVA 132/10.5kV)	132/10.5kV

5. LIST OF ONGOING PROJECTS – CONT.

Transmission Lines	Associated Substations	Voltage Level
75.5km 132kV Karuma – Lira		132kV
GERP	Mobile SS (2x25MVA 132/33/11kV)	132/33/11kV
90km 132kV Lira – Gulu	Gulu (2X40MVA 132/33kV), Kole (2X40MVA 132/33kV)	132/33kV
160km 132kV Gulu - Nebbi (Via Olwiyo)	Nebbi(2X40MVA 132/33kV)	132/33kV
63km 132kV Nebbi – Arua	Arua (2X40MVA 132/33kV)	
127km 220kV Bujagali – Tororo		220 kV
83km 132kV Gulu – Agago	Agago (2x32/40MVA 132/33kV)	132/33kV
23.5km 132kV Mutundwe – Entebbe	Entebbe(2X80MVA 132/33kV)	132/33kV
	Kasana (1x20MVA 132/33kV) and Matugga switching station	132/33kV
0.5km 132kV Tororo- Lessos T-off to Sukulu SS	Sukulu Phosphate(2X80MVA 132/10.5kV)	132/10.5kV

6. KEY CHALLENGES IN THE PREVIOUS MYT

SINGLE BUYER

- ❖ Deemed energy
- ❖ Collection from Distributors
- ❖ Deprecation of the Ushs against the USD

TRANSMISSION SYSTEM

- ❖ Vandalism of UETCL Infrastructure
- ❖ Corridor acquisition challenges
- ❖ Energy Transmission Losses

6. KEY CHALLENGES IN THE PREVIOUS MYT CONT

TRANSMISSION SYSTEM

- ❖ Inadequate regional power Interconnectors to enable energy trade and exchange
- ❖ Wooden transmission infrastructure (10%) resulting in high maintenance costs
- ❖ Transformer Capacity Constraints on the existing transmission grid
- ❖ Funding challenges for UETCL Grid Investment Plan

MITIGATION MEASURES

Single Buyer

- Fast track the 132kV ARPE Ltd evacuation line to reduce the deemed energy
- Fast track wheeling agreements with local distribution companies
- UETCL will continue to engage the distributors in coordination with the relevant authorities on the collections.

Transmission System

- UETCL plans to install an infrared based intrusion monitoring system to curb vandalism
- Working with security agencies to curb vandalism
- Sensitization of the public on dangers of vandalism
- Transformer Capacity Constraints on the existing transmission grid

7. MULTI YEAR BUDGET 2023 – 2025

KEY ASSUMPTIONS

- ❑ Demand is projected to grow at an average growth rate of 8% during the MYT.
- ❑ Energy Transmission losses have been projected at 4.11%, 4.00%, and 3.43% for the years 2023, 2024 and 2025 respectively from the projected transmission loss of 4.33% in the base year 2022.
- ❑ Forty-eight power generators are expected to contribute to the generation mix
- ❑ Maintenance of the grid network in conformity with prudent operating practice and requirement to achieve minimum grid availability of 98%.
- ❑ Base Exchange rate of Ugx 3,564.09/US dollar, a base Consumer Price Index (CPI) of 116.3 as at February 2022.

8. KEY FOCUS AREAS MULTI YEAR PERIOD 2023 – 2025

- ❑ Grid Extension to grow demand
- ❑ Evacuation of power from new generation plants
- ❑ Strengthening of the network to improve supply reliability
- ❑ Extension of power to the new Industrial parks
- ❑ Tower protection system-Anti Vandalism
- ❑ Proactive network operation & Maintenance
- ❑ Roll out automated meter reading & replacement of old Meters
- ❑ Transmission loss reduction
- ❑ Installation of indoor & Outdoor fire system
- ❑ Replace lattice towers with monopoles in vandalism prone areas
- ❑ Favorable work environment
- ❑ Safety & Environment

SINGLE BUYER BUDGET

The Single Buyer Budget for the financial years 2023, 2024 and 2025 is **UGX 1,370Bn, Ushs 1,474Bn and Ushs 1,519Bn** respectively.

This budget covers power purchase costs and related charges.

SUMMARY OF SINGLE BUYER COSTS

Particular	2023	2024	2025
	Ushs Bns		
Large Hydro	920	988	1,039
Thermal	106	94	57
Mini Hydro	264	274	282
Co-generation	152	153	153
Solar	46	49	49
Imports	10	10	10
Total Energy Purchase Costs	1,499	1,568	1,590
Less: Capacity Charges	(69)	(34)	(11)
Net Energy Purchase Costs	1,430	1,534	1,579
Third Party Charges	62	67	69
Total Purchase costs	1,492	1,601	1,649
Less: Export Revenue			
Total Export Revenue	(123)	(127)	(130)
Net Single Buyer Costs	1,370	1,474	1,519
Domestic sales-GWh	5,535	6,125	6,791
Average Tariff USH/ KWh	247	241	224

TRANSMISSION SYSTEM OPERATOR KEY COST DRIVERS

Additional substations and Transformation capacity

	Dec 2021	Jan 2022 - June 2022	2022 /2023	2023 /2024	2024 /2025		
			Additions			Total additions	Grand Total
Number of Substations	29	2	12	0	10	22	53
Number of Transformers	63	8	22	2	35	59	130
MVA Capacity	3,338.5	2,680	900	120	3,099	4,119	10,137.5

Additional Transmission line length (kms)

Voltage level/Years	Dec 2021	Jan 22-Jun 22	2022/2023	2023/2024	2024/2025
66	35.2	0	0	0	0
132	2,347.46	42.5	1,315.96	0	494.80
220	1,002.00	0	254	0	96.40
400	0		606	0	261.00
132kV underground cable	0.9	0	-	0	
Total length (km)	3,385.56	42.5	2,175.96	0	852.20
Cumulative Total length (km)	3,385.56	3,428.06	5,604.02	5,604.02	6,456.22

SUMMARY OF TRANSMISSION SYSTEM OPERATION BUDGET 2023 - 2025

Particular	Budget 2023	Budget 2024	Budget 2025	Total MYT (2023-2025)
	Ushs Mn			
Staff Costs	50,486	55,804	59,894	166,185
Other Staff Costs	11,316	11,678	11,864	34,858
Transport Costs	4,182	4,474	4,739	13,395
Repairs & Maintenance	17,646	18,796	19,245	55,687
Administrative Costs	28,177	28,450	28,229	84,855
Licenses Fees To ERA	1,665	1,717	1,717	5,099
Bank Guarantee Charges	620	620	620	1,859
Insurance Charges	3,045	3,654	4,385	11,083
Communication Levy	64	56	61	181
Rental Tax	128	128	139	395
Stamp Duty	373	-	-	373
Total O & M Costs	117,701	125,375	130,893	373,970

CAPITAL EXPENDITURE



The Capital expenditure budget for the financial years 2023, 2024 and 2025 is **Ugx 52Bn, Ugx 61Bn and Ugx 40Bn** respectively.

These are categorized into grid, non-grid and spares expenditures.

SUMMARY OF CAPITAL EXPENDITURE

Account Code	Capital Budget - Ugx Mn			
	2023	2024	2025	Total
Substations	6,899	4,622	5,500	17,021
Transmission Lines: Wooden	-	5,000	7,000	12,000
Transmission Lines: Metallic	1,200	3,790	3,659	8,649
Communication Equipment	11,335	9,736	9,422	30,493
Furniture and Fittings	160	277	80	517
Office Machines and Equipment	441	252	379	1,071
Tools and Equipment	1,656	425	2,314	4,394
Land-Freehold- (Kabulasoke)	3,400	800	-	4,200
Buildings	2,209	1,262	255	3,727
Computers	2,527	976	1,474	4,976
Scada Systems	1,810	9,251	1,000	12,061
Motor Vehicles/Cycles	5,550	4,118	2,633	12,301
Intangible Assets – (Software)	1,262	-	44	1,304
External stakeholders field reviews	2,907	-	-	2,907
Kasana Substation - 1x40MVA and associated HV and LV bays	7,844	-	-	7,844
132kV Bujagali - Iganga - Tororo Line Restringing	-	13	-	13
Matugga Substation-2*40MVA Power Transformers	-	14,800	-	14,800
Matugga Substation - 8*33KV Switchgear	-	1,776	-	1,776
FS-3 Arua-Aru 15km 132kV	-	-	1,614	1,614
Preliminary Project Implementation costs	2,323	3,200	4,023	9,545
Evaluations	622	523	423	1,568
Total	52,145	60,820	39,818	152,782

9. NON TARIFF INCOME

Particular	Budget 2023	Budget 2024	Budget 2025	Total MYT Budget 2023-2025
	Amount Ushs Mn			
Line Rental	2,926	3,001	3,076	9,003
Sale of Tender documents	76	78	80	235
Asset Disposal	80	82	84	246
Leasing Optic Fibre	3,192	2,784	3,063	9,039
Bank Interest	13,867	14,220	14,576	42,663
Rent	79	81	83	242
Total Income	20,219	20,246	20,961	61,427

10. ANNUAL REVENUE REQUIREMENTS

	ANNUAL REVENUE REQUIREMENTS			
Financial Year	Units	Budget 2023	Budget 2024	Budget 2025
Power Purchase in GWh	GWh	6,183.73	6,806.97	7,469.55
Energy Actual losses-% of purchased Energy	%	4.11%	4.00%	3.43%
Net Energy available for Sale-GWh	GWh	5,929.61	6,534.72	7,213.40
Less: Exported Energy	GWh	(394.63)	(409.68)	(422.53)
Net Domestic Energy Sales		5,534.98	6,125.04	6,790.87
Annual Revenue Requirements				
Single Buyer Segment Costs				
Energy Purchase Costs	Ush'Mn	1,430,195	1,533,674	1,579,468
Third Charges (GL & REL)	Ush'Mn	62,005	67,161	69,485
Less: Export Revenue	Ush'Mn	(122,681)	(126,692)	(130,022)
Net Energy Costs	Ush'Mn	1,369,518	1,474,143	1,518,931
Investment Costs	Ush'Mn	52,145	60,820	39,818
Total Operating costs	Ush'Mn	117,701	125,375	130,893
Less: Other Income	Ush'Mn	(20,219)	(20,246)	(20,961)
Net Transmission System Operation costs	Ush'Mn	149,627	165,949	149,749
Total Revenue Requirement	Ush'Mn	1,519,145	1,640,092	1,668,680

SUMMARY OF BULK SUPPLY TARIFF

Description		2022	2023	2024	2025
Transmission System Operator Costs	USh/kWh	32.96	27.03	27.09	22.05
Single Buyer	USh/kWh	232.17	247.43	240.67	223.67
Total Tariff per Year (UGX)	USh/kWh	265.13	274.46	267.77	245.72
Total Tariff per Year (USD)	USc/kWh	7.19	7.44	7.26	6.66

Support Required; Cost reflective tariff to enable the company deliver on its mandate.

