



GUJRANWALA ELECTRIC POWER COMPANY LIMITED

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No. GEPCO/MIRAD/UOSC/3563-66

Dated: 01-11-2023

✓ The Registrar,
National Electric Power Regulatory Authority,
NEPRA Tower, Attaturk Avenue (East),
G-5/1, Islamabad

Forwarded please:	
☒ For nec action	☐ for information
0 DG (Lic.)	2. DG (Admin. & Fin.)
0 DG (M&E)	4. DG (CAD)
0 DG (Trd.)	6. Dir. (Fin.)
0 DG (Tech.)	0 Consultant
0 LA	10. Dir. (IT)
For kind information please	
1 Chairman	2 M (Tech.)
3 M (Lic.)	4 M (Trd. & Fin.)
5 M (Law)	

Subject: PETITION FOR DETERMINATION OF USE OF SYSTEM CHARGES (UoSC) – ADDENDUM.

Reference: This office letter No. GEPCO/MIRAD/UOSC/3034-37 dated 22-09-23, in response to your letter No. NEPRA/DG(Tariff)/TRF-100/33375-85 dated 13-09-23.

This is in continuation of the Petition for Determination of Use of System Charge for FY 2023-24 submitted by GEPCO vide this office letter dated 22-09-2023 referred to above.

As detailed in the Petition for the Use of System Charge (UoSC), the proposed UoSCs were calculated after incorporating:

- The Revenue Requirements and the tariff numbers as determined by the Authority for the FY 2023-24 through Annual Tariff Adjustment,
- Units sold and purchased (kWh) rounding to GWh as considered in the tariff determination,
- Sales mix of FY 2022-23 as Base Year,
- Revenue calculated on Billable MDI; and
- The Cross-Subsidy as part of UoSCs was taken as the difference of relevant Cost of Service and average Determined Tariff of relevant category.

However, based on the deliberation with the representatives of Ministry of Energy, calculation of revised UoSC for FY 2023-24 became necessary for considering and incorporating the followings:

- Revenue calculated on GoP applicable tariff instead of Determined Tariff and hence Cross-Subsidy forming part of UoSC is the difference of Cost of Service and average applicable GoP tariff for the relevant category.
- Units Sold and Purchased are taken in kWh instead of rounding them to GWh.
- The Sale Mix and MDI is also taken from the underlying calculations forming basis for tariff determination.

TARIFF (DEPARTMENT)

Dir (T-I)..... Dir (T-H).....
Dir (T-H)..... Dir (T-V).....
Dir (T-V)..... Addl. Dir (RE).....
Date: 15-11-23

Tariff Division Record

By No. 7342
Dated 18-11-23

REGISTRAR OFFICE
Dy No: 16076
Date: 14-11-23

Foregoing in view, the Annex-1, Annex-1A and the Cost of Service (Annex-2) are being submitted attached herewith as Addendum to the UoSC Petition already submitted vide above referred letter.

Additionally, an Annex-3 is being added herewith to show the summary of differences in the Category-Wise Cost of Service and the proposed Use of System Charges in the original Petition versus the values submitted as per this Addendum.

For any clarification or additional information or any other matter relating hereto, Mr. Irfan Rafique, Director General MIRAD, GEPCO (0318-3991820, email: gepcodgmirad@gmail.com) is designated as focal person.


CHIEF EXECUTIVE OFFICER
GEPCO GUJRANWALA

DA/ As above

Cc to:

1. Chief Financial Officer GEPCO Gujranwala.
2. Customer Service Director GEPCO Gujranwala
3. Chief Law Officer, GEPCO Gujranwala
4. Master File



Gujranwala Electric Power Company (GEPCO) Ltd.

Cost of Service & Proposed Use of System Charges for FY 2023-24
For Possible Eligible Bulk Power Consumers (One MW or More at One Premises)
(PROPOSAL – 1)

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-1)			
Consumption Category	Industrial				Industrial				Industrial B-3 (1 MW or More)			
Tariff Category	B-3				B-3							
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	MDI Based	Volumetric	Hybrid	
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kW/ Month	Rs./kWh
Generation Cost - Energy	7.201			7.201	6.757			6.757				
Generation Cost - Capacity		6,531.08	15.411	15.411		6,128.77	14.462	14.462	6,128.77	14.462	1,838.63	10.123
Transmission Charges		523.27	1.235	1.235		491.04	1.159	1.159	491.04	1.159	147.31	0.811
Market Operator's Fee		3.80	0.009	0.009		3.57	0.008	0.008				
Distribution Use of System		1,891.62	4.464	4.464		1,775.10	4.189	4.189	1,775.10	4.189	532.53	2.932
Total Applicable Costs	7.201	8,949.77	21.119	28.320	6.757	8,398.47	19.818	26.575	8,394.90	19.809	2,518.47	13.867
Impact of allowed losses					0.444	551.31	1.301	1.745				
Total Cost of Service	7.201	8,949.77	21.119	28.320	7.201	8,949.77	21.119	28.320	8,394.90	19.809	2,518.47	13.867
Cross Subsidy				5.597				5.597	2,371.90	5.597		5.597
Average Applicable Tariff				33.917				33.917	10,766.80	25.406	2,518.47	19.464

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-1)			
Consumption Category	Industrial				Industrial				Industrial B-4			
Tariff Category	B4				B4							
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	MDI Based	Volumetric	Hybrid	
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kW/ Month	Rs./kWh
Generation Cost - Energy	6.821			6.821	6.757			6.757				
Generation Cost - Capacity		6,186.30	14.598	14.598		6,128.77	14.462	14.462	6,128.77	14.462	1,838.63	10.123
Transmission Charges		495.64	1.170	1.170		491.04	1.159	1.159	491.04	1.159	147.31	0.811
Market Operator's Fee		3.60	0.008	0.008		3.57	0.008	0.008				
Distribution Use of System		1,791.76	4.228	4.228		1,775.10	4.189	4.189	1,775.10	4.189	532.53	2.932
Total Applicable Costs	6.821	8,477.31	20.004	26.825	6.757	8,398.47	19.818	26.575	8,394.90	19.809	2,518.47	13.867
Impact of allowed losses					0.063	78.84	0.186	0.249				
Total Cost of Service	6.821	8,477.31	20.004	26.825	6.821	8,477.31	20.004	26.825	8,394.90	19.809	2,518.47	13.867
Cross Subsidy				6.356				6.356	2,693.77	6.356		6.356
Average Applicable Tariff				33.181				33.181	11,088.67	26.166	2,518.47	20.223

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-1)			
Consumption Category	Bulk Supply				Bulk Supply				Bulk Supply C-2(b) (1 MW or More)			
Tariff Category	C2(b)				C2(b)							
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	MDI Based	Volumetric	Hybrid	
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kW/ Month	Rs./kWh
Generation Cost - Energy	7.201			7.201	6.757			6.757				
Generation Cost - Capacity		6,531.08	15.549	15.549		6,128.77	14.591	14.591	6,128.77	14.591	1,838.63	10.214
Transmission Charges		523.27	1.246	1.246		491.04	1.169	1.169	491.04	1.169	147.31	0.818
Market Operator's Fee		3.57	0.009	0.009		3.57	0.008	0.008				
Distribution Use of System		1,887.45	4.494	4.494		1,771.18	4.217	4.217	1,771.18	4.217	531.35	2.952
Total Applicable Costs	7.201	8,945.36	21.297	28.499	6.757	8,394.55	19.986	26.743	8,390.98	19.977	2,517.29	13.984
Impact of allowed losses					0.444	551.05	1.312	1.756				
Total Cost of Service	7.201	8,945.36	21.297	28.499	7.201	8,945.60	21.297	28.499	8,390.98	19.977	2,517.29	13.984
Cross Subsidy				8.588				8.588	3,607.34	8.588		8.588
Average Applicable Tariff				37.087				37.087	11,998.32	28.565	2,517.29	22.572

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-1)			
Consumption Category	Bulk Supply				Bulk Supply				Bulk Supply C-3(b)			
Tariff Category	C3(b)				C3(b)							
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	MDI Based	Volumetric	Hybrid	
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kW/ Month	Rs./kWh
Generation Cost - Energy	6.821			6.821	6.757			6.757				
Generation Cost - Capacity		6,186.30	14.728	14.728		6,128.77	14.591	14.591	6,128.77	14.591	1,838.63	10.214
Transmission Charges		495.64	1.180	1.180		491.04	1.169	1.169	491.04	1.169	147.31	0.818
Market Operator's Fee		3.60	0.009	0.009		3.57	0.008	0.008				
Distribution Use of System		1,787.81	4.256	4.256		1,771.18	4.217	4.217	1,771.18	4.217	531.35	2.952
Total Applicable Costs	6.821	8,473.35	20.173	26.994	6.757	8,394.55	19.986	26.743	8,390.98	19.977	2,517.29	13.984
Impact of allowed losses					0.063	78.80	0.188	0.251				
Total Cost of Service	6.821	8,473.35	20.173	26.994	6.821	8,473.35	20.173	26.994	8,390.98	19.977	3,195.96	17.754
Cross Subsidy				9.482				9.482	3,982.84	9.482		9.482
Average Applicable Tariff				36.476				36.476	12,373.82	29.459	3,195.96	27.286



Gujranwala Electric Power Company (GEPCO) Ltd.

Cost of Service & Proposed Use of System Charges for FY 2023-24
For Possible Eligible Bulk Power Consumers (One MW or More at One Premises)
(PROPOSAL – 2)

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-2)			
Consumption Category	Industrial				Industrial				Industrial B-3 (1 MW or More)			
Tariff Category	B-3				B-3				MDI Based	Volumetric	Hybrid	
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	Rs./kW/ Month	Rs./kW	Rs./kW/ Month	Rs./kW
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh				
Generation Cost - Energy	7.201			7.201	6.757			6.757				
Generation Cost - Capacity		5,236.26	15.411	15.411		4,913.70	14.462	14.462	4,913.70	14.462	1,474.11	10.123
Transmission Charges		419.53	1.235	1.235		393.68	1.159	1.159	393.68	1.159	118.11	0.811
Market Operator's Fee		3.05	0.009	0.009		2.86	0.008	0.008				
Distribution Use of System		1,516.60	4.464	4.464		1,423.17	4.189	4.189	1,423.17	4.189	426.95	2.932
Total Applicable Costs	7.201	7,175.43	21.119	28.320	6.757	6,733.42	19.818	26.575	6,730.56	19.809	2,019.17	13.867
Impact of allowed losses					0.444	442.01	1.301	1.745				
Total Cost of Service	7.201	7,175.43	21.119	28.320	7.201	7,175.43	21.119	28.320	6,730.56	19.809	2,019.17	13.867
Cross Subsidy				5.597				5.597	1,901.66	5.597		5.597
Average Applicable Tariff				33.917				33.917	8,632.22	25.406	2,019.17	19.464

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-2)			
Consumption Category	Industrial				Industrial				Industrial B-4			
Tariff Category	B4				B4				MDI Based	Volumetric	Hybrid	
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	Rs./kW/ Month	Rs./kW	Rs./kW/ Month	Rs./kW
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh				
Generation Cost - Energy	6.821			6.821	6.757			6.757				
Generation Cost - Capacity		4,959.83	14.598	14.598		4,913.70	14.462	14.462	4,913.70	14.462	1,474.11	10.123
Transmission Charges		397.38	1.170	1.170		393.68	1.159	1.159	393.68	1.159	118.11	0.811
Market Operator's Fee		2.89	0.008	0.008		2.86	0.008	0.008				
Distribution Use of System		1,436.53	4.228	4.228		1,423.17	4.189	4.189	1,423.17	4.189	426.95	2.932
Total Applicable Costs	6.821	6,796.63	20.004	26.825	6.757	6,733.42	19.818	26.575	6,730.56	19.809	2,019.17	13.867
Impact of allowed losses					0.063	63.21	0.186	0.249				
Total Cost of Service	6.821	6,796.63	20.004	26.825	6.821	6,796.63	20.004	26.825	6,730.56	19.809	2,019.17	13.867
Cross Subsidy				6.356				6.356	2,159.71	6.356		6.356
Average Applicable Tariff				33.181				33.181	8,890.27	26.166	2,019.17	20.223

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-2)			
Consumption Category	Bulk Supply				Bulk Supply				Bulk Supply C-2(b) (1 MW or More)			
Tariff Category	C2(b)				C2(b)				MDI Based	Volumetric	Hybrid	
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	Rs./kW/ Month	Rs./kW	Rs./kW/ Month	Rs./kW
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh				
Generation Cost - Energy	7.201			7.201	6.757			6.757				
Generation Cost - Capacity		5,774.24	15.549	15.549		5,418.54	14.591	14.591	5,418.54	14.591	1,625.56	10.214
Transmission Charges		462.63	1.246	1.246		434.13	1.169	1.169	434.13	1.169	130.24	0.818
Market Operator's Fee		3.15	0.009	0.009		3.15	0.008	0.008				
Distribution Use of System		1,668.72	4.494	4.494		1,565.93	4.217	4.217	1,565.93	4.217	469.78	2.952
Total Applicable Costs	7.201	7,908.74	21.297	28.499	6.757	7,421.76	19.986	26.743	7,418.60	19.977	2,225.58	13.984
Impact of allowed losses					0.444	487.19	1.312	1.756				
Total Cost of Service	7.201	7,908.74	21.297	28.499	7.201	7,908.95	21.297	28.499	7,418.60	19.977	2,225.58	13.984
Cross Subsidy				8.588				8.588	3,189.31	8.588		8.588
Average Applicable Tariff				37.087				37.087	10,607.91	28.565	2,225.58	22.572

Cost Assessment Level	Cost of Service (Inclusive of Energy Loss Impact)				Cost of Service (Separated Energy Loss Impact)				PROPOSED Use of System Charges (Proposal-2)			
Consumption Category	Bulk Supply				Bulk Supply				Bulk Supply C-3(b)			
Tariff Category	C3(b)				C3(b)				MDI Based	Volumetric	Hybrid	
Functional Cost Element	Variable	Fixed		Total	Variable	Fixed		Total	Rs./kW/ Month	Rs./kW	Rs./kW/ Month	Rs./kW
	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kW/ Month	Rs./kWh	Rs./kWh				
Generation Cost - Energy	6.821			6.821	6.757			6.757				
Generation Cost - Capacity		5,469.41	14.728	14.728		5,418.54	14.591	14.591	5,418.54	14.591	1,625.56	10.214
Transmission Charges		438.21	1.180	1.180		434.13	1.169	1.169	434.13	1.169	130.24	0.818
Market Operator's Fee		3.18	0.009	0.009		3.15	0.008	0.008				
Distribution Use of System		1,580.63	4.256	4.256		1,565.93	4.217	4.217	1,565.93	4.217	469.78	2.952
Total Applicable Costs	6.821	7,491.43	20.173	26.994	6.757	7,421.76	19.986	26.743	7,418.60	19.977	2,225.58	13.984
Impact of allowed losses					0.063	69.67	0.188	0.251				
Total Cost of Service	6.821	7,491.43	20.173	26.994	6.821	7,491.43	20.173	26.994	7,418.60	19.977	2,825.60	17.734
Cross Subsidy				9.482				9.482	3,521.29	9.482		9.482
Average Applicable Tariff				36.476				36.476	10,939.89	29.459	2,825.60	27.236



FY 2023-24

GEPCO Cost of Service Study

FY 2023-24



Providing Power for Progress and Prosperity

GUJRANWALA ELECTRIC POWER COMPANY LIMITED



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Gujranwala Electric Power Company (GEPCO) Ltd.

Cost of Service Study

A Cost of Service (COS) study is the fundamental tool for evaluating and establishing utility rates. With industry and technology changes, utilities are expanding the scope and use of COS studies and are preparing studies that distinguish full and partial requirements customer classes. This is due to the increasing presence of distributed energy resources and/or to accommodate customers' expectations of having more control over their usage and utility bills.

Cost of Service is the total cost incurred by a utility company/DISCO in providing services to its customers and the allocation of the same to customer classes and/or voltage levels.

Fully Allocated Cost of Service Study (FACOS) Model

FACOS is a model developed in MS Excel with the support of USAID for DISCO's to conduct Cost of Service Study. The methodology used to build the FACOS Model follows very closely the standards that are used internationally. The Model performs the standard three steps encompassed in most of Cost Studies, namely, functionalization, classification, and allocation.

Major Steps of Cost of Service Study

A class cost of service study begins with a detailed documentation of the numerous budgetary elements of the total revenue requirement. The detailed revenue requirements are the data inputs to the FACOS. At a high level, the FACOS process consists of the following three (3) basic steps:

1. **Functionalization** – The identification of each cost element as one of the basic utility service "functions" (e.g. generation/Power Purchase Price, transmission, distribution and customer).
2. **Classification** – The classification of the functionalized costs based on the billing component/determinant that each is associated with (e.g. kW of capacity, kWh of energy or number of customers).
3. **Allocation** – The allocation of the functionalized and classified costs to customer classes, based on respective service requirements / parameters (e.g. kW of capacity, kWh of energy and the number of customers) of each class.

Fundamental Assumptions

Table 1

Description	FY 2023-24
Weighted Average Cost of Capital (FY 2023-24 MYT approved)	21.14%
Capital Work in Progress ("CWIP")	CWIP 100%
Working Capital Allowance to be included in Rate Base	NO
Prior Year Adjustment (Rs. in Mill. Approved by NEPRA for FY 2023-24)	23,185
Demand Allocation Methodology (highest coincident peak in the year). Alternative is 12CP that means average of 12 months' coincident peak)	1 CP (Single Annual Peak)
Customer Growth % (Over Prior Year i.e. 2022-23 Actual Billed)	11.71%
Model Year	FY 2023-24
Base Year	FY 2021-22



Projections and Revenue Requirement for Financial Year 2023-24

The Revenue Requirement (RR) is the fundamental input to the Cost of Service of GEPCO for allocation to different categories of consumers based on Capacity (kW), Energy (kWh) and number of consumers. The **Table 2** below explains the basis and sources for arriving at Revenue Requirement (or overall Cost of Service) of GEPCO.

Table 2

Description	FY 2023-24	Source
Units Purchases (MkWh)	12,885	Projections approved by NEPRA for FY 2023-24 vide No. NEPRA/R/DG(Trf)ITRF-562&TRF-563/GEPCO-2021/18233-39 dated 14-07-2023, Page No. 27, Clause 10.1
Units Sales (MkWh)	11,725	
Assessed T&D Losses	9.00%	Determined in MYT
Consumer Growth	11.71%	Over Prior Year i.e. FY 2022-23 Actual Billed
Average Monthly MDI (MW) (Non-coincidental at CDPs)	2,742	NEPRA projections vide NEPRA/R/DG(Tariff)/TRF-100/18249-53 dated 14-07-2023 Page No. 3, Clause 11.
Peak Demand (MW at 11 kv Conincident)	2,650	Demand Forecast (Dec-2022). Allocated to customer categories after impact of losses at each voltage for calculation of fixed charge of Cost of Service
Avg. Monthly MDI Recorded (MW) (Non-coincidental at meters)	1,427	Average of Projected Monthly MDI to be billed in FY 2023-24
Energy Charge (Rs/kWh)	6.76	Calculated by using given Cost and quantitative parameters for cost allocation purposes.
Capacity Charge (Rs/kW/Month)	5,971.4	
T.UoSC (Rs/kW/Month)	479.01	
MOF (Rs/kW/Month)	3.48	Approved by NEPRA for FY 2022-23 vide NEPRA/DG(TRF)/TRF-586/CPPAG-2022/12889-12891 dated 22-05-2023
Engergy Charges (Rs. M)	87,069	Approved by NEPRA in Tariff Determinaiton for FY 2023-24 vide No. NEPRA/R/DG(Trf)ITRF-562&TRF-563/GEPCO-2021/18233-39 dated 14-07-2023, Page No. 27, Clause 10.1
Capacity Charges (Rs. M)	196,482	
T.UoSC (Rs. M)	15,761	
MOF (Rs. M)	115	
Power Purchase Price	299,427	
O&M Cost (Million Rs.)	26,434	Revised DM for FY 2023-24 in MYT approved by NEPRA. (Reference as above)
Depreciation (Million Rs.)	3,235	
RORB (Million Rs.)	9,703	
Other Income (Million Rs.)	(3,491)	
Prior Year Adjustment (Rs. M)	23,185	MYT Adjustment for FY 2023-24 aproved by NEPRA.
Revenue Requirement (Rs. M)	358,493	
Cost per kWh (sold)	30.57	



Summary of Revenue Requirement

The extract of Revenue Requirement is provided in the **Table 3** below:

Table 3

Summary of Revenue Requirement	
Description	FY 2023-24 Rs. (M)
Energy Charges	87,069
Capacity Charges	196,482
T.UoSC	15,761
MOF	115
Power Purchase Price	299,427
O&M Cost	26,434
Depreciation	3,235
RORB	9,703
Other Income	(3,491)
Distribution Margin	35,881
Prior Year Adjustment	23,185
Revenue Requirement	358,493

Line Losses Charged on Voltage Levels

Line losses approved by NEPRA for FY 2023-24 as a percentage on purchased units is given in **Table 4**. Line losses as a percentage on received units at each voltage level are calculated on the basis of sales data of FY 2022-23.

Table 4

Losses FY 2023-24					
Voltage Level	0.2 kV	0.4 kV	11 kV	132kV	Total
Losses %age on purchased units	2.84%		5.23%	0.93%	9.00%
Losses %age on received units	3.52%		5.28%	0.93%	9.00%
Losses %age charged on purchased units	9.46%		6.16%	0.93%	

Target as per Nepa Detemination is 9.00%. Therefore, losses for FY 2023-24 are taken as 9.00%.

calculated as applied on units received at each voltage level.

Reversed calculated to show affective %age of losses vs. units purchased for each voltage level.

Overall the effective %age of energy losses, i.e. (total kWh purchases – total kWh sold)/total kWh purchased remains 9.00% as per target.



Customer Classification by Voltage Level

While the Cost of Service study is based on allocation of the Revenue Requirement on Classes (categories) of the consumers at different voltage levels; the **Table 5** below provides mapping of existing categories of consumers on the basis of applicable voltage levels.

Table 5

Classification by Voltage Level				
Voltage	132/66kV	11kV	0.4kV	0.2 kV
Customer Class	B4	B3	A1b	A1a
	C3a	C2a	A2b	A2a
	C3b	C2b	A2c	B1a
		H1	A2d	C1a
		H2	A3a	E1i
		K1a	B1b	E1ii
		K1b	B2a	E2
			B2b	
			C1b	
			C1c	
			D1a	
			D1b	
			D2a	
			D2b	
			G1	
			G2	

GoP Applicable Tariff Notified in July-2023.

GoP applicable Tariffs for various categories as notified by NEPRA vide No. NEPRA/R/DG(TRF)/TRF-100/19271-19290 dated 25-07-2023 are provided in **Table 6** below.



Table 6

GoP Applicable Tariff Annex-A-1 (25-07-2023)			
TARIFF CATAGORIES		Fixed Charges Rs./KW/M	Variable Charges Rs./kWh
A1 (a)	RESIDENTIAL - A1		
i	Up to 50 Units Life line		3.95
ii	51-100 units Life line		7.74
iii	01-100 Units		7.74
iv	101-200 Units		10.06
v	01-100 Units		16.48
vi	101-200 Units		22.95
vii	201-300 Units		27.14
viii	301-400Units		32.03
ix	401-500Units		35.24
x	501-600Units		36.66
xi	601-700Units		37.80
xii	Above 700 Units		42.72
A1(b)	Time of Use (TOU) - Peak		41.89
	Time of Use (TOU) - Off-Peak		35.57
E-1(i)	Temporary E-1 (i)		42.03
	COMMERCIAL - A2		
A2 (a)	Commercial - For peak load requirement up to 5 kW		37.75
A2 (b)	Sanctioned load 5 kw and above	500	39.43
A2 (c)	Time of Use (TOU) - Peak (A-2)	500	41.35
	Time of Use (TOU) - Off-Peak	500	35.38
A2 (d)	Vahicle Charging		39.43
E-1 (ii)	Temporary E-1 (ii)		38.14
	INDUSTRIAL		
B1(a)	B1		34.33
B1(b)	B1- TOU (Peak)		37.89
	B1 - TOU (Off-peak)		32.33
B2 (a)	B2	500	33.83
B2 (b)	B2 - TOU (Peak)	500	37.83
	B2 - TOU (Off-peak)	500	32.12
B3	B3 - TOU (Peak)	460	37.83
	B3 - TOU (Off-peak)	460	32.03
B4	B4 - TOU (Peak)	440	37.83
	B4 - TOU (Off-peak)	440	31.93
E-2	Temporary E-2		35.41
	BULK		
C1 (a)	C1(a) up to 5 kW		38.43
C1 (b)	C1(b) exceeding 5 kW	500	37.93
C1 (c)	Time of Use (TOU) - Peak	500	41.35
	Time of Use (TOU) - Off-Peak	500	34.75
C2 (a)	C2 Supply at 11 kV	500	37.73
C2 (b)	Time of Use (TOU) - Peak	460	41.35
	Time of Use (TOU) - Off-Peak	460	34.55
C3 (a)	C3 Supply above 11 kV	440	37.63
C3 (b)	Time of Use (TOU) - Peak	440	41.35
	Time of Use (TOU) - Off-Peak	440	34.45
	AGRICULTURAL TUBE WELLS - Tariff D		
D1 (a)	D1 Scarp		34.43
D2 (a)	D2 Agricultural Tube-wells	200	24.10
D1 (b)	Time of Use (TOU) - Peak	200	37.35
	Time of Use (TOU) - Off-Peak	200	30.10
D2 (b)	Time of Use (TOU) - Peak	200	24.10
	Time of Use (TOU) - Off-Peak	200	24.10
G	Public Lighting G		37.43
H	Residential Colonies H		37.43
K1	Special Contracts - Tariff K (AJK)	440	34.65
K1 (i)	Time of Use (TOU) - Peak	440	40.35
	Time of Use (TOU) - Off-Peak	440	33.45
A3	General Service		37.31



Results from FACOS Model

Revenue Requirement Allocation (in Percentage)

While developing the Fully Allocated Cost of Service Model, the detailed study for allocation of cost of service and rate base (for each component) to cost drivers (energy, demand and customer) was developed. Overall summary of the allocation is given in below **Table 7**

Table 7

Revenue Requirement Allocation %age				
Description	Energy	Demand	Customer	Total
Energy Charges	100%	-	-	100%
Capacity Charges	-	100%	-	100%
T.UoSC	-	100%	-	100%
MOF	-	100%	-	100%
O&M Cost	-	72%	28%	100%
Depreciation	-	82%	18%	100%
RORB	-	83%	17%	100%
Other Income	-	84%	16%	100%
Prior Year Adjustment	-	72%	28%	100%

Revenue Requirement Allocation to Energy, Demand and Customer.

Based on the allocation percentages given in above table, the revenue requirement allocated to energy, demand and customer (cost triggers) is shown in **Table 8** below.

Table 8

Revenue Requirement Allocation Rs. (M)				
Description	Energy	Demand	Customer	Total
Energy Charges	87,069	-	-	87,069
Capacity Charges	-	196,482	-	196,482
T.UoSC	-	15,761	-	15,761
MOF	-	115	-	115
Power Purchase Price	87,069	212,358	-	299,427
O&M Cost	-	19,124	7,311	26,434
Depreciation	-	2,663	571	3,235
RORB	-	8,006	1,697	9,703
Other Income	-	(2,917)	(574)	(3,491)
Distribution Margin	-	26,876	9,005	35,881
Prior Year Adjustment	-	16,780	6,405	23,185
Revenue Requirement	87,069	256,014	15,410	358,493

Revenue as per GoP Applicable Tariff by Customer Category and Voltage Level

The **Table 9** below provides detailed category-wise estimated revenue and average (Rs./kWh) thereof. Whereas the **Table 10** is summary of the said category-wise estimated revenue based on the supply Voltage level of relevant customer category, with average rate (Rs./kWh) thereof. As already



GEPCO – Addendum to Petition for Determination of UoS (Oct, 2023) **Annex-2 (Revised)**

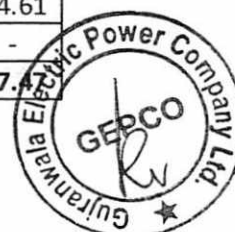
mentioned, the calculation of revenue is based on GoP Applicable Tariff notified vide No. NEPRA/R/DG(TRF)/TRF-100/19271-19290 dated 25-07-2023 already provided in (**Table 6**).

Table 9

FY 2023-24						
Customer Category	MDI MW	Sales (GWh)	Fixed Charge Rs. (M)	Variable Charge Rs. (M)	Total Revenue Rs.(M)	Rs./kWh
Residential -- A1(a)	-	6,626.14	-	146,273	146,273	22.08
Residential -- A1(b)	-	193.87	-	7,133	7,133	36.79
Commercial -- A2(a)	-	383.29	-	14,469	14,469	37.75
Commercial -- A2(b)	0.10	0.33	1	13	14	41.28
Commercial -- A2(c)	190.16	386.07	1,141	14,141	15,282	39.58
Commercial --A2(d) V.Ch	-	0.12	-	5	5	39.43
Industrial -- B1(a)	-	33.81	-	1,161	1,161	34.33
Industrial -- B2(a)	0.05	0.10	0	4	4	36.52
Industrial -- B1(b)	-	490.06	-	16,210	16,210	33.08
Industrial -- B2(b)	471.10	1,131.19	2,827	37,229	40,056	35.41
Industrial -- B3	301.63	1,229.82	1,665	40,046	41,712	33.92
Industrial -- B4	-	-	-	-	-	-
Single Point Supply -- C1(a)	-	0.04	-	2	2	38.43
Single Point Supply -- C1(b)	0.06	0.19	0	7	8	39.85
Single Point Supply -- C2(a)	-	-	-	-	-	-
Single Point Supply -- C3(a)	-	-	-	-	-	-
Single Point Supply -- C1(c)	2.98	10.63	18	380	398	37.43
Single Point Supply -- C2(b)	37.42	166.75	207	5,978	6,184	37.09
Single Point Supply -- C3(b)	-	-	-	-	-	-
Agricultural --D1(a)	-	0.02	-	1	1	34.43
Agricultural --D2(a)	57.13	84.75	137	2,042	2,179	25.72
Agricultural --D2(b)	293.04	471.47	703	11,362	12,066	25.59
Agricultural --D1(b)	0.02	0.03	0	1	1	32.47
Temporary Supply -- E1(i)	-	1.27	-	53	53	42.03
Temporary Supply -- E1(ii)	-	15.82	-	603	603	38.14
Temporary Supply -- E2	-	0.87	-	31	31	35.41
Public Lighting -- G	-	17.68	-	662	662	37.43
Residential Colonies -- H	-	0.78	-	29	29	37.43
Azad Jammu Kashmir - K1a	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	72.88	292.49	385	10,175	10,560	36.10
A3 General	-	187.63	-	7,000	7,000	37.31
Total	1,427	11,725	7,084	315,010	322,094	27.47

Table 10

FY 2023-24						
Customer Class	MDI MW	Sales (GWh)	Fixed Charge Rs. (M)	Variable Charge Rs. (M)	Total Revenue	Rs./kWh
0.2 kV	-	7,061	-	162,592	162,592	23.03
0.4 kV	1,015	2,974	4,827	96,190	101,017	33.97
11 Kv	339	1,690	2,256	56,228	58,485	34.61
132 kv	-	-	-	-	-	-
G. TOTAL	1,354	11,725	7,084	315,010	322,094	27.47



Cost of Service Functionalized Rates (Tariff Wise)

Based on the allocation of overall Revenue Requirement of GEPCO to customers categories, the resultant functional amounts (Rs. in million) for each customer category are summarized at **Table 11** below. Currently there is no customer at 132kv in GEPCO. Cost of Service at 132kv will be discussed later in this document.

Table 11

FY 2023-24											
Classes	Volt. Level	No. of Customers	Energy	Demand	Generation Cost		Transm	MOF	Distribution		Total Cost
			GWh	MW	Energy (Rs.M)	Demand (Rs.M)	Cost (Rs.M)	Cost (Rs.M)	Demand (Rs.M)	Cust. Cost (Rs.M)	
Residential -- A1(a)	0.2kv	4,111,702	6,626	1,397	49,455	113,497	9,093	66	25,104	9,579	206,795
Residential -- A1(b)	0.4kv	40,196	194	41	1,447	3,321	266	2	734	216	5,986
Commercial -- A2(a)	0.2kv	445,148	383	81	2,861	6,584	527	4	1,456	554	11,986
Commercial -- A2(b)	0.4kv	31	0	0	2	6	0	0	1	0	10
Commercial -- A2(c)	0.4kv	19,832	386	80	2,882	6,479	519	4	1,433	431	11,747
Commercial -- A2(d)	0.4kv	1	0	0	1	2	0	0	0	0	4
Industrial -- B1(a)	0.2kv	16,122	34	7	252	579	46	0	128	49	1,056
Industrial -- B2(a)	0.4kv	551	0	0	1	2	0	0	0	0	3
Industrial -- B1(b)	0.4kv	62,774	490	100	3,658	8,098	649	5	1,791	547	14,748
Industrial -- B2(b)	0.4kv	11,983	1,131	230	8,443	18,654	1,495	11	4,126	1,263	33,992
Industrial -- B3	11kv	327	1,230	242	8,856	18,953	1,519	11	4,121	1,369	34,828
Industrial -- B4	132kv	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(a)	0.2kv	30	0	0	0	1	0	0	0	0	1
Single P. Supply C1(b)	0.4kv	6	0	0	1	3	0	0	1	0	6
Single P. Supply C2(a)	11kv	-	-	-	-	-	-	-	-	-	-
Single P. Supply C3(a)	132kv	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(c)	0.4kv	79	11	2	79	178	14	0	39	12	323
Single P. Supply C2(b)	11kv	46	167	33	1,201	2,593	208	2	564	186	4,752
Single P. Supply C3(b)	132kv	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kv	448	0	0	0	0	0	0	0	0	0
Agricultural -- D2(a)	0.4kv	11,645	85	18	633	1,437	115	1	318	95	2,598
Agricultural -- D2(b)	0.4kv	50,328	471	98	3,519	7,952	637	5	1,759	526	14,398
Agricultural -- D1(b)	0.4kv	13	0	0	0	1	0	0	0	0	1
Temp. Supply - E1(i)	0.2kv	956	1	0	9	22	2	0	5	2	40
Temp. Supply- E1(ii)	0.2kv	2,740	16	3	118	275	22	0	61	23	498
Temp. Supply - E2	0.2kv	33	1	0	6	15	1	0	3	1	27
Public Lighting -- G	0.4kv	779	18	4	132	297	24	0	66	20	539
Res. Colonies -- H	11kv	17	1	0	6	12	1	0	3	1	22
AJK - K1a	11kv	-	-	-	-	-	-	-	-	-	-
AJK - K1b	11kv	18	292	59	2,106	4,594	368	3	999	326	8,395
A3 General	0.4kv	24,830	188	39	1,400	3,169	254	2	701	209	5,736
Total		4,800,634	11,725	2,434	87,069	196,724	15,761	115	43,414	15,410	358,493



GEPCO – Addendum to Petition for Determination of UoSC (Oct, 2023) **Annex-2 (Revised)**

Based on the cost drivers (energy, demand & customers) based allocation of overall Revenue Requirement of GEPCO to the customers categories, the resultant functional (generation, transmission, MO Fee & Distribution) rates (in terms of Rs./kWh, Rs./kW/Month and Rs./Customer / Month, as applicable) are summarized at **Table 12** below.

Table 12

FY 2023-24											
Classes	Volt. Level	No. of Customers	Energy	Demand	Generation Cost		Transm	MOF	Distribution		Total Rs./ kWh
			GWh	MW	Energy (Rs./kWh)	Demand (Rs./kW/Month)	(Rs./kW /Month)	(Rs./kW/ Month)	(Rs./kW/M onth)	(Rs./ Cust/ Month)	
Residential -- A1(a)	0.2kV	4,111,702	6,626	1,397	7.46	6,769.23	542.35	3.94	1,497.26	194.15	31.21
Residential -- A1(b)	0.4kV	40,196	194	41	7.46	6,769.23	542.35	3.94	1,497.26	448.76	30.88
Commercial -- A2(a)	0.2kV	445,148	383	81	7.46	6,769.23	542.35	3.94	1,497.26	103.73	31.27
Commercial -- A2(b)	0.4kV	31	0	0	7.46	6,769.23	542.35	3.94	1,497.26	1,014.82	30.80
Commercial -- A2(c)	0.4kV	19,832	386	80	7.46	6,769.23	542.35	3.94	1,497.26	1,811.31	30.43
Commercial -- A2(d)	0.4kV	1	0	0	7.46	6,769.23	542.35	3.94	1,497.26	10,909.40	30.15
Industrial -- B1(a)	0.2kV	16,122	34	7	7.46	6,769.23	542.35	3.94	1,497.26	252.66	31.22
Industrial -- B2(a)	0.4kV	551	0	0	7.46	6,769.23	542.35	3.94	1,497.26	17.51	30.42
Industrial -- B1(b)	0.4kV	62,774	490	100	7.46	6,769.23	542.35	3.94	1,497.26	726.36	30.09
Industrial -- B2(b)	0.4kV	11,983	1,131	230	7.46	6,769.23	542.35	3.94	1,497.26	8,782.79	30.05
Industrial -- B3	11kV	327	1,230	242	7.20	6,531.09	523.27	3.80	1,419.90	348,727	28.32
Industrial -- B4	132kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(a)	0.2kV	30	0	0	7.46	6,769.23	542.35	3.94	1,497.26	179.04	31.74
Single P. Supply C1(b)	0.4kV	6	0	0	7.46	6,769.23	542.35	3.94	1,497.26	3,149.03	30.49
Single P. Supply C2(a)	11kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C3(a)	132kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(c)	0.4kV	79	11	2	7.46	6,769.23	542.35	3.94	1,497.26	12,540	30.41
Single P. Supply C2(b)	11kV	46	167	33	7.20	6,531.09	523.27	3.80	1,419.90	-	28.50
Single P. Supply C3(b)	132kV	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	448	0	0	7.46	6,769.23	542.35	3.94	1,497.26	3.27	30.36
Agricultural -- D2(a)	0.4kV	11,645	85	18	7.46	6,769.23	542.35	3.94	1,497.26	677.11	30.66
Agricultural -- D2(b)	0.4kV	50,328	471	98	7.46	6,769.23	542.35	3.94	1,497.26	871.61	30.54
Agricultural -- D1(b)	0.4kV	13	0	0	7.46	6,769.23	542.35	3.94	1,497.26	247.62	30.75
Temp. Supply - E1(i)	0.2kV	956	1	0	7.46	6,769.23	542.35	3.94	1,497.26	159.77	31.87
Temp. Supply - E1(ii)	0.2kV	2,740	16	3	7.46	6,769.23	542.35	3.94	1,497.26	695.31	31.52
Temp. Supply - E2	0.2kV	33	1	0	7.46	6,769.23	542.35	3.94	1,497.26	3,167.05	31.21
Public Lighting -- G	0.4kV	779	18	4	7.46	6,769.23	542.35	3.94	1,497.26	2,110.90	30.48
Res. Colonies -- H	11kV	17	1	0	7.20	6,531.09	523.27	3.80	1,419.90	4,316.62	28.52
AJK - K1a	11kV	-	-	-	-	-	-	-	-	-	-
AJK - K1b	11kV	18	292	59	7.20	6,531.09	523.27	3.80	1,419.90	1,517,936	28.70
A3 General	0.4kV	24,830	188	39	7.46	6,769.23	542.35	3.94	1,497.26	703.08	30.57
Total/Average		4,800,634	11,725	2,434	7.43	6,736.58	539.73	3.92	1,486.65	267.50	30.57

The above detailed functional rates recapitulated, in terms of Rs./kW/Month, for each function is given in table **Table 13** below.



Table 13

FY 2023-24											
Classes	Volt. Level	No. of Customers	Energy	Demand	Generation Cost		Transm	MOF	Distribution		Total Rs./kW/ Month
			GWh	MW	Energy (Rs/kW/ Month)	Demand (Rs/kW/ Month)	(Rs/kW /Month)	(Rs/kW/ Month)	(Rs/kW/M onth)	(Rs./ kW/ Month)	
Residential -- A1(a)	0.2kV	4,111,702	6,626	1,397	2,949.62	6,769.23	542.35	3.94	1,497.26	571.34	12,333.73
Residential -- A1(b)	0.4kV	40,196	194	41	2,949.79	6,769.23	542.35	3.94	1,497.26	441.27	12,203.84
Commercial -- A2(a)	0.2kV	445,148	383	81	2,941.39	6,769.23	542.35	3.94	1,497.26	569.75	12,323.92
Commercial -- A2(b)	0.4kV	31	0	0	2,960.13	6,769.23	542.35	3.94	1,497.26	442.82	12,215.72
Commercial -- A2(c)	0.4kV	19,832	386	80	3,010.65	6,769.23	542.35	3.94	1,497.26	450.37	12,273.80
Commercial -- A2(d)	0.4kV	1	0	0	3,048.81	6,769.23	542.35	3.94	1,497.26	456.08	12,317.67
Industrial -- B1(a)	0.2kV	16,122	34	7	2,947.99	6,769.23	542.35	3.94	1,497.26	571.02	12,331.80
Industrial -- B2(a)	0.4kV	551	0	0	3,011.03	6,769.23	542.35	3.94	1,497.26	450.43	12,274.24
Industrial -- B1(b)	0.4kV	62,774	490	100	3,057.35	6,769.23	542.35	3.94	1,497.26	457.36	12,327.49
Industrial -- B2(b)	0.4kV	11,983	1,131	230	3,063.68	6,769.23	542.35	3.94	1,497.26	458.30	12,334.76
Industrial -- B3	11kV	327	1,230	242	3,051.68	6,531.09	523.27	3.80	1,419.90	471.72	12,001.45
Industrial -- B4	132kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(a)	0.2kV	30	0	0	2,881.12	6,769.23	542.35	3.94	1,497.26	558.07	12,251.97
Single P. Supply C1(b)	0.4kV	6	0	0	3,001.85	6,769.23	542.35	3.94	1,497.26	449.06	12,263.68
Single P. Supply C2(a)	11kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C3(a)	132kV	-	-	-	-	-	-	-	-	-	-
Single P. Supply C1(c)	0.4kV	79	11	2	3,012.50	6,769.23	542.35	3.94	1,497.26	450.65	12,275.93
Single P. Supply C2(b)	11kV	46	167	33	3,024.66	6,531.09	523.27	3.80	1,419.90	467.55	11,970.26
Single P. Supply C3(b)	132kV	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	448	0	0	3,019.73	6,769.23	542.35	3.94	1,497.26	451.73	12,284.24
Agricultural -- D2(a)	0.4kV	11,645	85	18	2,978.63	6,769.23	542.35	3.94	1,497.26	445.58	12,236.99
Agricultural -- D2(b)	0.4kV	50,328	471	98	2,995.49	6,769.23	542.35	3.94	1,497.26	448.10	12,256.37
Agricultural -- D1(b)	0.4kV	13	0	0	2,966.71	6,769.23	542.35	3.94	1,497.26	443.80	12,223.29
Temp. Supply - E1(i)	0.2kV	956	1	0	2,864.17	6,769.23	542.35	3.94	1,497.26	554.79	12,231.74
Temp. Supply- E1(ii)	0.2kV	2,740	16	3	2,909.52	6,769.23	542.35	3.94	1,497.26	563.57	12,285.88
Temp. Supply - E2	0.2kV	33	1	0	2,949.17	6,769.23	542.35	3.94	1,497.26	571.25	12,333.21
Public Lighting -- G	0.4kV	779	18	4	3,003.36	6,769.23	542.35	3.94	1,497.26	449.28	12,265.43
Res. Colonies -- H	11kV	17	1	0	3,020.75	6,531.09	523.27	3.80	1,419.90	466.94	11,965.74
AJK - K1a	11kV	-	-	-	-	-	-	-	-	-	-
AJK - K1b	11kV	18	292	59	2,994.51	6,531.09	523.27	3.80	1,419.90	462.89	11,935.45
A3 General	0.4kV	24,830	188	39	2,991.14	6,769.23	542.35	3.94	1,497.26	447.45	12,251.38
Total		4,800,634	11,725	2,434	2,981.56	6,736.58	539.73	3.92	1,486.65	527.70	12,276.14



Unbundled Rates Rs./kWh (Tariff Wise)

The functional allocation of Revenue Requirement of GEPCO (Generation, Transmission, MO Fee and Distribution Cost) to customers categories, in Rs./kWh are shown in **Table 14** below.

Table 14

FY 2023-24								
Customer Category	Voltage level	Sales GWh	Demand MW	Generation Rs./kWh	T. UoSC Rs./kWh	MOF Rs./kWh	D. UoSC Rs./kWh	Total Rate Rs./kWh
Residential -- A1(a)	0.2kV	6,626	1,397	24.59	1.37	0.01	5.23	31.21
Residential -- A1(b)	0.4kV	194	41	24.59	1.37	0.01	4.90	30.88
Commercial -- A2(a)	0.2kV	383	81	24.64	1.38	0.01	5.24	31.27
Commercial -- A2(b)	0.4kV	0	0	24.53	1.37	0.01	4.89	30.80
Commercial -- A2(c)	0.4kV	386	80	24.25	1.34	0.01	4.83	30.43
Commercial -- A2(d) V.Ch	0.4kV	0	0	24.04	1.33	0.01	4.78	30.15
Industrial -- B1(a)	0.2kV	34	7	24.60	1.37	0.01	5.24	31.22
Industrial -- B2(a)	0.4kV	0	0	24.24	1.34	0.01	4.83	30.42
Industrial -- B1(b)	0.4kV	490	100	23.99	1.32	0.01	4.77	30.09
Industrial -- B2(b)	0.4kV	1,131	230	23.95	1.32	0.01	4.76	30.05
Industrial -- B3	11kV	1,230	242	22.61	1.23	0.01	4.46	28.32
Industrial -- B4	132/66kV	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	25.00	1.40	0.01	5.32	31.74
Single Point Supply -- C1(b)	0.4kV	0	0	24.29	1.35	0.01	4.84	30.49
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	2	24.23	1.34	0.01	4.83	30.41
Single Point Supply -- C2(b)	11kV	167	33	22.75	1.25	0.01	4.49	28.50
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	24.19	1.34	0.01	4.82	30.36
Agricultural -- D2(a)	0.4kV	85	18	24.43	1.36	0.01	4.87	30.66
Agricultural -- D2(b)	0.4kV	471	98	24.33	1.35	0.01	4.85	30.54
Agricultural -- D1(b)	0.4kV	0	0	24.49	1.36	0.01	4.88	30.75
Temporary Supply -- E1(i)	0.2kV	1	0	25.10	1.41	0.01	5.35	31.87
Temporary Supply -- E1(ii)	0.2kV	16	3	24.83	1.39	0.01	5.29	31.52
Temporary Supply -- E2	0.2kV	1	0	24.59	1.37	0.01	5.23	31.21
Public Lighting -- G	0.4kV	18	4	24.29	1.35	0.01	4.84	30.48
Residential Colonies -- H	11kV	1	0	22.77	1.25	0.01	4.50	28.52
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	59	22.91	1.26	0.01	4.53	28.70
A3 General	0.4kV	188	39	24.35	1.35	0.01	4.85	30.57
Total		11,725	2,434	24.20	1.34	0.01	5.02	30.57



Volumetric Rates at Each Customer Category

The above functional rates combined in terms of the nature (Fixed or Variable) and resultant rates in terms of Rs./kW/Month and/or Rs./kWh are provided in **Table 15** below.

Table 15

FY 2023-24							
Customer Category	Voltage Level	Sales GWh	Allocated Cost Rs. (M)		Fixed Charge Rs/kW/Month	Variable Charge Rs/kWh	Total Rate Rs/kWh
			Fixed Cost	Variable Cost			
Residential -- A1(a)	0.2kV	6,626	147,760	59,034	8,813	8.91	31.21
Residential -- A1(b)	0.4kV	194	4,323	1,663	8,813	8.58	30.88
Commercial -- A2(a)	0.2kV	383	8,571	3,415	8,813	8.91	31.27
Commercial -- A2(b)	0.4kV	0	7	3	8,813	8.58	30.80
Commercial -- A2(c)	0.4kV	386	8,435	3,313	8,813	8.58	30.43
Commercial -- A2(d)	0.4kV	0	3	1	8,813	8.58	30.15
Industrial -- B1(a)	0.4kV	34	754	301	8,813	8.91	31.22
Industrial -- B2(a)	0.2kV	0	2	1	8,813	8.58	30.42
Industrial -- B1(b)	0.4kV	490	10,543	4,205	8,813	8.58	30.09
Industrial -- B2(b)	0.4kV	1,131	24,286	9,706	8,813	8.58	30.05
Industrial -- B3	0.4kV	1,230	24,603	10,225	8,478	8.31	28.32
Industrial -- B4	11kV	-	-	-	-	-	-
Single P. Supply C1(a)	132/66kV	0	1	0	8,813	8.91	31.74
Single P. Supply C1(b)	0.2kV	0	4	2	8,813	8.58	30.49
Single P. Supply C2(a)	0.4kV	-	-	-	-	-	-
Single P. Supply C3(a)	11kV	-	-	-	-	-	-
Single P. Supply C1(c)	132/66kV	11	232	91	8,813	8.58	30.41
Single P. Supply C2(b)	0.4kV	167	3,366	1,386	8,478	8.31	28.50
Single P. Supply C3(b)	11kV	-	-	-	-	-	-
Agricultural -- D1(a)	132/66kV	0	0	0	8,813	8.58	30.36
Agricultural -- D2(a)	0.4kV	85	1,871	727	8,813	8.58	30.66
Agricultural -- D2(b)	0.4kV	471	10,353	4,045	8,813	8.58	30.54
Agricultural -- D1(b)	0.4kV	0	1	0	8,813	8.58	30.75
Temp. Supply - E1(i)	0.4kV	1	29	11	8,813	8.91	31.87
Temp. Supply- E1(ii)	0.2kV	16	358	141	8,813	8.91	31.52
Temp. Supply - E2	0.2kV	1	19	8	8,813	8.91	31.21
Public Lighting -- G	0.2kV	18	387	152	8,813	8.58	30.48
Res. Colonies -- H	0.4kV	1	16	6	8,478	8.31	28.52
AJK - K1a	11kV	-	-	-	-	-	-
AJK - K1b	11kV	292	5,963	2,432	8,478	8.31	28.70
A3 General	11kV	188	4,126	1,610	8,813	8.58	30.57
Total		11,725	256,014	102,479	8,813	8.58	30.57

Note: Variable Cost in **Table 15** includes energy cost and customer services cost.

Revenue, Cost of Service and Subsidies (Tariff Category Wise)

Based on assessment of revenue and the cost of service for each category of consumer, as per the details provided herein before, the Subsidy or Cross Subsidy (the difference between revenue and



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cost) in terms of million rupees against each customer tariff category is provided in **Table 16** below. It may be noted that the negative figure means the customer is subsidized (revenue less than cost) whereas the positive figure shows that the customer is cross subsidizing (revenue more than cost). Average, in terms of Rs./kWh, assessment of subsidy or cross-subsidy, as the case may be, is also arrived in the last column of Table 16 below.

Table 16

FY 2023-24											
Customer Class	Voltage	Sales GWh	Demand MW	Revenue as per NEPRA Tariff			Cost of Service			Difference Subsidy M. PKR	subsidy Rs./kWh
				Demand Charge (M.PKR)	Energy Charge M.PKR	Total M. PKR	Demand Cost (M.PKR)	Energy Cost M.PKR	Total M. PKR		
Residential A1(a)	0.2kV	6,626	1,397	-	146,273	146,273	147,760	59,034	206,795	(60,522)	(9.13)
Residential A1(b)	0.4kV	194	41	-	7,133	7,133	4,323	1,663	5,986	1,147	5.91
Commercial A2(a)	0.2kV	383	81	-	14,469	14,469	8,571	3,415	11,986	2,483	6.48
Commercial A2(b)	0.4kV	0.33	0.07	1	13	14	7	3	10	4	10.48
Commercial A2(c)	0.4kV	386	80	1,141	14,141	15,282	8,435	3,313	11,747	3,534	9.15
Commercial A2(d)	0.4kV	0	0	-	5	5	3	1	4	1	9.28
Industrial B1(a)	0.2kV	34	7	-	1,161	1,161	754	301	1,056	105	3.11
Industrial B2(a)	0.4kV	0	0	0	4	4	2	1	3	1	6.10
Industrial B1(b)	0.4kV	490	100	-	16,210	16,210	10,543	4,205	14,748	1,462	2.98
Industrial B2(b)	0.4kV	1,131	230	2,827	37,229	40,056	24,286	9,706	33,992	6,064	5.36
Industrial B3	11kV	1,230	242	1,665	40,046	41,712	24,603	10,225	34,828	6,883	5.60
Industrial B4	132kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C1(a)	0.2kV	0	0	-	2	2	1	0	1	0	6.69
Bulk Supply C1(b)	0.4kV	0	0	0	7	8	4	2	6	2	9.36
Bulk Supply C2(a)	11kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C3(a)	132kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C1(c)	0.4kV	11	2	18	380	398	232	91	323	75	7.02
Bulk Supply C2(b)	11kV	167	33	207	5,978	6,184	3,366	1,386	4,752	1,432	8.59
Bulk Supply C3(b)	132kV	-	-	-	-	-	-	-	-	-	-
Agricultural D1(a)	0.4kV	0	0	-	1	1	0	0	0	0	4.07
Agricultural D2(a)	0.4kV	85	18	137	2,042	2,179	1,871	727	2,598	(419)	(4.94)
Agricultural D2(b)	0.4kV	471	98	703	11,362	12,066	10,353	4,045	14,398	(2,332)	(4.95)
Agricultural D1(b)	0.4kV	0	0	0	1	1	1	0	1	0	1.72
Temporary E1(i)	0.2kV	1	0	-	53	53	29	11	40	13	10.16
Temporary E1(ii)	0.2kV	16	3	-	603	603	358	141	498	105	6.62
Temporary E2	0.2kV	1	0	-	31	31	19	8	27	4	4.20
Public Lighting G	0.4kV	18	4	-	662	662	387	152	539	123	6.95
Residential Col.H	11kV	1	0	-	29	29	16	6	22	7	8.91
A J K K1a	11kV	-	-	-	-	-	-	-	-	-	-
A J K K1b	11kV	292	59	385	10,175	10,560	5,963	2,432	8,395	2,165	7.40
A3 General	0.4kV	188	39	-	7,000	7,000	4,126	1,610	5,736	1,265	6.74
Total		11,725	2,434	7,084	315,010	322,094	256,014	102,479	358,493	(36,399)	(3.10)

Revenue, Cost of Service, Subsidy and Revenue to Cost Ratios

Revenue, Cost of Service and Subsidy in terms of million rupees for each category of the consumers is shown in **Table 17** below. The Table also provides the Revenue to Cost Ratio which shows that:

- If this ratio is less than one, the relevant customer class is subsidized, i.e. the tariff revenue is less than the allocated cost;

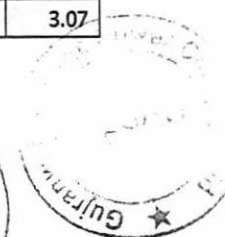


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- If this ratio is greater than one, the relevant customer class is cross subsidizing, i.e. the tariff revenue is higher than the allocated cost; and
- If this ratio is equal to one, the customer class is at adequately priced vis-à-vis the allocated cost.

Table 17

FY 2023-24											
Customer Class	Voltage	Sales GWh	Demand MW	Revenue as per NEPRA Tariff		Cost of Service		Difference/Subsidy M. PKR		Revenue to Cost Ratio	
				Fixed (Rs.M)	Variable (Rs. M)	Fixed (Rs.M)	Variable (Rs. M)	Fixed Rs. M	Variable Rs. M	Fixed	Variable
Residential A1(a)	0.2kV	6,626	1,397	-	146,273	147,760	59,034	147,760	(87,239)	-	2.48
Residential A1(b)	0.4kV	194	41	-	7,133	4,323	1,663	4,323	(5,470)	-	4.29
Commercial A2(a)	0.2kV	383	81	-	14,469	8,571	3,415	8,571	(11,054)	-	4.24
Commercial A2(b)	0.4kV	0	0.07	1	13	7	3	7	(10)	0.08	4.60
Commercial A2(c)	0.4kV	386	80	1,141	14,141	8,435	3,313	7,294	(10,828)	0.14	4.27
Commercial A2(d)	0.4kV	0	0.02	-	4.62	2.53	1.01	2.53	(3.62)	-	4.60
Industrial B1(a)	0.2kV	34	7	-	1,161	754	301	754	(859)	-	3.85
Industrial B2(a)	0.4kV	0	0	0	4	2	1	2	(3)	0.12	3.94
Industrial B1(b)	0.4kV	490	100	-	16,210	10,543	4,205	10,543	(12,006)	-	3.86
Industrial B2(b)	0.4kV	1,131	230	2,827	37,229	24,286	9,706	21,459	(27,523)	0.12	3.84
Industrial B3	11kV	1,230	242	1,665	40,046	24,603	10,225	22,938	(29,822)	0.07	3.92
Industrial B4	132kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C1(a)	0.2kV	0	0	-	2	1	0	1	(1)	-	4.31
Bulk Supply C1(b)	0.4kV	0	0	0	7	4	2	4	(6)	0.09	4.42
Bulk Supply C2(a)	11kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C3(a)	132kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C1(c)	0.4kV	11	2	18	380	232	91	214	(289)	0.08	4.17
Bulk Supply C2(b)	11kV	167	33	207	5,978	3,366	1,386	3,159	(4,591)	0.06	4.31
Bulk Supply C3(b)	132kV	-	-	-	-	-	-	-	-	-	-
Agricultural D1(a)	0.4kV	0	0	-	1	0	0	0	(0)	-	4.01
Agricultural D2(a)	0.4kV	85	18	137	2,042	1,871	727	1,734	(1,315)	0.07	2.81
Agricultural D2(b)	0.4kV	471	98	703	11,362	10,353	4,045	9,649	(7,317)	0.07	2.81
Agricultural D1(b)	0.4kV	0	0	0	1	1	0	1	(1)	0.05	3.65
Temporary E1(i)	0.2kV	1	0	-	53	29	11	29	(42)	-	4.72
Temporary E1(ii)	0.2kV	16	3	-	603	358	141	358	(462)	-	4.28
Temporary E2	0.2kV	1	0	-	31	19	8	19	(23)	-	3.97
Public Lighting G	0.4kV	18	4	-	662	387	152	387	(510)	-	4.36
Residential Col.H	11kV	1	0	-	29	16	6	16	(23)	-	4.50
A J K K1a	11kV	-	-	-	-	-	-	-	-	-	-
A J K K1b	11kV	292	59	385	10,175	5,963	2,432	5,578	(7,743)	0.06	4.18
A3 General	0.4kV	188	39	-	7,000	4,126	1,610	4,126	(5,391)	-	4.35
Total		11,725	2,434	7,084	315,010	256,014	102,479	248,931	(212,532)	0.03	3.07



Revenue, Cost of Service and Subsidies (Rs./kWh)

Revenue, Cost of Service and Subsidy in terms of Rs./kWh for each category of the consumers is shown in **Table 18** below. The Table also provides the Revenue to Cost Ratio.

Table 18

FY 2023-24						
Customer Class	Voltage	Sales GWh	Revenue Rs./kWh	Cost of Service Rs./kWh	Subsidy Rs./kWh	Revenue to Cost Ratio
Residential A1(a)	0.2kV	6,626	22.08	31.21	(9.13)	0.71
Residential A1(b)	0.4kV	194	36.79	30.88	5.91	1.19
Commercial A2(a)	0.2kV	383	37.75	31.27	6.48	1.21
Commercial A2(b)	0.4kV	0	41.28	30.80	10.48	1.34
Commercial A2(c)	0.4kV	386	39.58	30.43	9.15	1.30
Commercial A2(d)	0.4kV	0	39.43	30.15	9.28	1.31
Industrial B1(a)	0.2kV	34	34.33	31.22	3.11	1.10
Industrial B2(a)	0.4kV	0	36.52	30.42	6.10	1.20
Industrial B1(b)	0.4kV	490	33.08	30.09	2.98	1.10
Industrial B2(b)	0.4kV	1,131	35.41	30.05	5.36	1.18
Industrial B3	11kV	1,230	33.92	28.32	5.60	1.20
Industrial B4	132kV	-	-	-	-	-
Bulk Supply C1(a)	0.2kV	0	38.43	31.74	6.69	1.21
Bulk Supply C1(b)	0.4kV	0	39.85	30.49	9.36	1.31
Bulk Supply C2(a)	11kV	-	-	-	-	-
Bulk Supply C3(a)	132kV	-	-	-	-	-
Bulk Supply C1(c)	0.4kV	11	37.43	30.41	7.02	1.23
Bulk Supply C2(b)	11kV	167	37.09	28.50	8.59	1.30
Bulk Supply C3(b)	132kV	-	-	-	-	-
Agricultural D1(a)	0.4kV	0	34.43	30.36	4.07	1.13
Agricultural D2(a)	0.4kV	85	25.72	30.66	(4.94)	0.84
Agricultural D2(b)	0.4kV	471	25.59	30.54	(4.95)	0.84
Agricultural D1(b)	0.4kV	0	32.47	30.75	1.72	1.06
Temporary E1(i)	0.2kV	1	42.03	31.87	10.16	1.32
Temporary E1(ii)	0.2kV	16	38.14	31.52	6.62	1.21
Temporary E2	0.2kV	1	35.41	31.21	4.20	1.13
Public Lighting G	0.4kV	18	37.43	30.48	6.95	1.23
Residential Col.H	11kV	1	37.43	28.52	8.91	1.31
A J K K1a	11kV	-	-	-	-	-
A J K K1b	11kV	292	36.10	28.70	7.40	1.26
A3 General	0.4kV	188	37.31	30.57	6.74	1.22
Sub Total		11,725	27.47	30.57	(3.10)	0.90



Revenue, Cost of Service and Subsidies (11 kV and Above)

The revenue, cost of service and subsidies for customer categories that fall under 11kv are summarized at **Table 19** below.

Table 19

FY 2023-24											
Customer Class	Voltage	Sales GWh	Demand MW	Revenue as per NEPRA Tariff			Cost of Service			Difference Subsidy M. PKR	Subsidy Rs./kWh
				Demand Charge (M.PKR)	Energy Charge M.PKR	Total M. PKR	Demand Cost (M.PKR)	Energy Cost M.PKR	Total M. PKR		
Industrial B3	11kV	1,230	242	1,665	40,046	41,712	24,603	10,225	34,828	6,883	5.60
Bulk Supply C2(a)	11kV	-	-	-	-	-	-	-	-	-	-
Bulk Supply C2(b)	11kV	167	33	207	5,978	6,184	3,366	1,386	4,752	1,432	8.59
Residential Col.H	11kV	1	0	-	29	29	16	6	22	7	8.91
A J K K1a	11kV	-	-	-	-	-	-	-	-	-	-
A J K K1b	11kV	292	59	385	10,175	10,560	5,963	2,432	8,395	2,165	7.40

Revenue/kWh, Cost of Service/kWh and Subsidies/kWh (BPC only)

With regard to the above analysis, the following points are emphasized:

1. Currently, there is no 132/66 KV customer within GEPCO, therefore, in the absence of real data, no values thereof could be assessed. A broad assessment of the Cost of Service of such customers can, however, be inferred based on analogy of other closest category of customers (e.g. B-3 for B-4 and C-2 for C-3) by incorporating differential of energy losses.
2. Although the Industrial B-3 and Bulk Supply C2 customers are at 11 KV connection level, however, any of these customers may not fall within the definition of BPC as contained in NEPRA Act, 1997, being less than 1 MW.
3. The customer categories A-2 and A-3, for purposes of cost of service assessment, have been considered at 0.4 KV level. However, these costumers, based on the sanctioned load, may be connected at 11 KV level, as required.
4. Consumer category for tariff H, i.e. housing colonies attached to industries, despite being connected at 11 kV, cannot be considered as BPC for (i) principally being resale in nature and (ii) being less than 1 MW.
5. The supply feed for AJK customer category is primarily for resale purpose, therefore, not entitled for consideration as BPC.

Based on the above clarification, the abstract of Revenue (Rs./kWh), the Cost of Service (Rs./kWh) and resultant cross-subsidy (Rs./kWh) is appended at **Table 20** below.

Table 20

FY 2023-24					
Customer Class	Voltage	Sales GWh	Revenue Rs./kWh	Cost of Service Rs./kWh	Subsidy Rs./kWh
Industrial B3	11kV	1,230	33.92	28.32	5.60
Bulk Supply C2(b)	11kV	167	37.09	28.50	8.59



Master Data for Results of GEPCO's Cost of Service Study (FY 2023-24)

For interest of the readers to glance through overall master data for result of GEPCO's Cost of Service Study (FY 2023-24), following Tables (Table 21 to Table 27) are added separately.

Final Remarks:

- The above Cost of Service Study Report (FY 2023-24) is a sincere human effort to arrive at judicious assessment of functional (generation, transmission, market operator, distribution and customer services) costs for each category of consumers demonstrating the needs and parameters associated with relevant category.
- The results of the study are to be used for the purposes of rate making of Use of System Charges for possible eligible Bulk Power Consumers.
- The Fully Allocated Cost of Service (FACOS) model used for the purpose of this study is realistically elaborate, professionally structured in line with international practices and reasonably accurate to provide equitable results in terms of costs associated with demonstrated needs of the customers. Human errors and omissions are, however, expected.
- The underlying assumptions made and considerations relied upon in carrying out this Cost of Service Study were adopted with all possible care and have been disclosed in details to the extent possible, without any prejudice.
- Inherent and unforeseen limitations of the FACOS model, assumptions made and consideration relied upon may not be as exhaustive as expected; accordingly, for the purposes of rate making of Use of System Charges, certain out of the model iterations may be necessary.
- While the Cost of Service is (90%) covered by the GoP applicable tariffs, inherent cross subsidization and possibility of stranded costs need considerate, careful, concerted and continuous attention for proactive mitigation thereof.
- While currently certain classes of consumers are enjoying benefit of inter and intra tariff subsidies, the other categories of consumers are paying huge (06~34%) cross-subsidies. For a robust, vibrant and successful wholesale, and later retail, power market, minimization, if not elimination, of intra and inter tariff subsidies shall remain fundamental requirement.



Table 21

COST OF SERVICE FY 2023-24														
Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs. M)	MOF Cost (Rs. M)	Distribution		Total Cost (Rs. M)	Cost Rs./kWh sold	Cost Rs./kWh Purchased
		Sold	Purchased	at Meter	at CDP	Energy (Rs. M)	Demand (Rs. M)			Demand (Rs. M)	cust. Cost (Rs. M)			
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	49,455	113,497	9,093	66	25,104	9,579	206,795	31.21	28.26
Residential -- A1(b)	0.4kV	194	214	41	45	1,447	3,321	266	2	734	216	5,986	30.88	27.96
Commercial -- A2(a)	0.2kV	383	423	81	90	2,861	6,584	527	4	1,456	554	11,986	31.27	28.31
Commercial -- A2(b)	0.4kV	0	0	0	0	2	6	0	0	1	0	10	30.80	27.89
Commercial -- A2(c)	0.4kV	386	426	80	88	2,882	6,479	519	4	1,433	431	11,747	30.43	27.55
Commercial --A2(d) V.Ch	0.4kV	0	0	0	0	1	2	0	0	0	0	4	30.15	27.30
Industrial -- B1(a)	0.2kV	34	37	7	8	252	579	46	0	128	49	1,056	31.22	28.27
Industrial -- B2(a)	0.4kV	0	0	0	0	1	2	0	0	0	0	3	30.42	27.55
Industrial -- B1(b)	0.4kV	490	541	100	110	3,658	8,098	649	5	1,791	547	14,748	30.09	27.25
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	8,443	18,654	1,495	11	4,126	1,263	33,992	30.05	27.21
Industrial -- B3	11kV	1,230	1,311	242	258	8,856	18,953	1,519	11	4,121	1,369	34,828	28.32	26.58
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	0	1	0	0	0	0	1	31.74	28.74
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	1	3	0	0	1	0	6	30.49	27.61
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	79	178	14	0	39	12	323	30.41	27.54
Single Point Supply -- C2(b)	11kV	167	178	33	35	1,201	2,593	208	2	564	186	4,752	28.50	26.74
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural --D1(a)	0.4kV	0	0	0	0	0	0	0	0	0	0	0	30.36	27.49
Agricultural --D2(a)	0.4kV	85	94	18	20	633	1,437	115	1	318	95	2,598	30.66	27.76
Agricultural --D2(b)	0.4kV	471	521	98	108	3,519	7,952	637	5	1,759	526	14,398	30.54	27.65
Agricultural --D1(b)	0.4kV	0	0	0	0	0	1	0	0	0	0	1	30.75	27.84
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	9	22	2	0	5	2	40	31.87	28.86
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	118	275	22	0	61	23	498	31.52	28.53
Temporary Supply -- E2	0.2kV	1	1	0	0	6	15	1	0	3	1	27	31.21	28.26
Public Lighting-- G	0.4kV	18	20	4	4	132	297	24	0	66	20	539	30.48	27.60
Residential Colonies -- H	11kV	1	1	0	0	6	12	1	0	3	1	22	28.52	26.77
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	2,106	4,594	368	3	999	326	8,395	28.70	26.93
A3 General	0.4kV	188	207	39	43	1,400	3,169	254	2	701	209	5,736	30.57	27.68
Total		11,725	12,885	2,434	2,675	87,069	196,724	15,761	115	43,414	15,410	358,493	30.57	27.82

Table 22

COST OF SERVICE FY 2023-24 (per kW or kWh SOLD)

Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs./kW/M)	MOF Cost (Rs./kW/M)	Distribution		Total Fixed Cost (Rs./kW/M)	Fixed Cost Rs./kWh sold	Total Cost Rs./kWh Sold
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kW/M)			Demand (Rs./kW/M)	cust. Cost (Rs./kW/M)			
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	7.46	6,769.23	542.35	3.94	1,497.26	571.34	9,384.12	23.75	31.21
Residential -- A1(b)	0.4kV	194	214	41	45	7.46	6,769.23	542.35	3.94	1,497.26	441.27	9,254.05	23.41	30.88
Commercial -- A2(a)	0.2kV	383	423	81	90	7.46	6,769.23	542.35	3.94	1,497.26	569.75	9,382.53	23.81	31.27
Commercial -- A2(b)	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	442.82	9,255.60	23.34	30.80
Commercial -- A2(c)	0.4kV	386	426	80	88	7.46	6,769.23	542.35	3.94	1,497.26	450.37	9,263.15	22.96	30.43
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	456.08	9,268.86	22.69	30.15
Industrial -- B1(a)	0.2kV	34	37	7	8	7.46	6,769.23	542.35	3.94	1,497.26	571.02	9,383.81	23.76	31.22
Industrial -- B2(a)	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	450.43	9,263.21	22.96	30.42
Industrial -- B1(b)	0.4kV	490	541	100	110	7.46	6,769.23	542.35	3.94	1,497.26	457.36	9,270.14	22.63	30.09
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	7	6,769	542	4	1,497	458	9,271	22.59	30.05
Industrial -- B3	11kV	1,230	1,311	242	258	7	6,531	523	4	1,420	472	8,950	21.12	28.32
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	558.07	9,370.85	24.28	31.74
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	449.06	9,261.84	23.03	30.49
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	7	6,769	542	4	1,497	451	9,263	22.95	30.41
Single Point Supply -- C2(b)	11kV	167	178	33	35	7	6,531	523	4	1,420	468	8,946	21.30	28.50
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	451.73	9,264.51	22.90	30.36
Agricultural -- D2(a)	0.4kV	85	94	18	20	7.46	6,769.23	542.35	3.94	1,497.26	445.58	9,258.36	23.20	30.66
Agricultural -- D2(b)	0.4kV	471	521	98	108	7.46	6,769.23	542.35	3.94	1,497.26	448.10	9,260.89	23.07	30.54
Agricultural -- D1(b)	0.4kV	0	0	0	0	7.46	6,769.23	542.35	3.94	1,497.26	443.80	9,256.58	23.29	30.75
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	7.46	6,769.23	542.35	3.94	1,497.26	554.79	9,367.57	24.41	31.87
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	7.46	6,769.23	542.35	3.94	1,497.26	563.57	9,376.35	24.05	31.52
Temporary Supply -- E2	0.2kV	1	1	0	0	7.46	6,769.23	542.35	3.94	1,497.26	571.25	9,384.03	23.75	31.21
Public Lighting -- G	0.4kV	18	20	4	4	7.46	6,769.23	542.35	3.94	1,497.26	449.28	9,262.06	23.02	30.48
Residential Colonies -- H	11kV	1	1	0	0	7.20	6,531.09	523.27	3.80	1,419.90	466.94	8,944.99	21.32	28.52
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	7.20	6,531.09	523.27	3.80	1,419.90	462.89	8,940.94	21.50	28.70
A3 General	0.4kV	188	207	39	43	7.46	6,769.23	542.35	3.94	1,497.26	447.45	9,260.24	23.11	30.57
Total		11,725	12,885	2,434	2,675	7.43	6,736.58	539.73	3.92	1,486.65	527.70	9,294.58	23.15	30.57

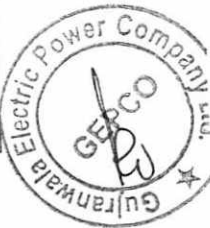


Table 23

COST OF SERVICE FY 2023-24 (per kW or kWh at Purchased)													
Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs./kW/M)	MOF Cost (Rs./kW/M)	Distribution		Fixed Cost Rs./kWh Purchased	Total Cost Rs./kWh Purchased
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kW/M)			Demand (Rs./kW/M)	cust. Cost (Rs./kW/M)		
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	6.76	6,128.77	491.03	3.57	1,355.60	517.28	21.50	28.26
Residential -- A1(b)	0.4kV	194	214	41	45	6.76	6,128.77	491.03	3.57	1,355.60	399.52	21.20	27.96
Commercial -- A2(a)	0.2kV	383	423	81	90	6.76	6,128.77	491.03	3.57	1,355.60	515.84	21.56	28.31
Commercial -- A2(b)	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	400.92	21.13	27.89
Commercial -- A2(c)	0.4kV	386	426	80	88	6.76	6,128.77	491.03	3.57	1,355.60	407.76	20.79	27.55
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	412.93	20.54	27.30
Industrial -- B1(a)	0.2kV	34	37	7	8	6.76	6,128.77	491.03	3.57	1,355.60	517.00	21.51	28.27
Industrial -- B2(a)	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	407.81	20.79	27.55
Industrial -- B1(b)	0.4kV	490	541	100	110	6.76	6,128.77	491.03	3.57	1,355.60	414.09	20.49	27.25
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	7	6,129	491	4	1,356	415	20.45	27.21
Industrial -- B3	11kV	1,230	1,311	242	258	7	6,129	491	4	1,332	443	19.82	26.58
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	505.27	21.98	28.74
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	406.57	20.85	27.61
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	7	6,129	491	4	1,356	408	20.78	27.54
Single Point Supply -- C2(b)	11kV	167	178	33	35	7	6,129	491	4	1,332	439	19.99	26.74
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	408.99	20.73	27.49
Agricultural -- D2(a)	0.4kV	85	94	18	20	6.76	6,128.77	491.03	3.57	1,355.60	403.42	21.00	27.76
Agricultural -- D2(b)	0.4kV	471	521	98	108	6.76	6,128.77	491.03	3.57	1,355.60	405.71	20.89	27.65
Agricultural -- D1(b)	0.4kV	0	0	0	0	6.76	6,128.77	491.03	3.57	1,355.60	401.81	21.08	27.84
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	6.76	6,128.77	491.03	3.57	1,355.60	502.30	22.10	28.86
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	6.76	6,128.77	491.03	3.57	1,355.60	510.25	21.78	28.53
Temporary Supply -- E2	0.2kV	1	1	0	0	6.76	6,128.77	491.03	3.57	1,355.60	517.21	21.50	28.26
Public Lighting -- G	0.4kV	18	20	4	4	6.76	6,128.77	491.03	3.57	1,355.60	406.77	20.84	27.60
Residential Colonies -- H	11kV	1	1	0	0	6.76	6,128.77	491.03	3.57	1,332.43	438.18	20.01	26.77
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	6.76	6,128.77	491.03	3.57	1,332.43	434.37	20.18	26.93
A3 General	0.4kV	188	207	39	43	6.76	6,128.77	491.03	3.57	1,355.60	405.12	20.92	27.68
Total		11,725	12,885	2,434	2,675	6.76	6,128.77	491.03	3.57	1,352.52	480.09	21.07	27.82



Table 24

COST OF SERVICE FY 2023-24 (per kWh SOLD)													
Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs./kWh)	MOF Cost (Rs./kWh)	Distribution		Total Fixed Cost (Rs./kWh)	Fixed Cost Rs./kWh Purchased
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kWh)			Demand (Rs./kWh)	cust. Cost (Rs./kWh)		
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	7.46	17.13	1.37	0.010	3.79	1.45	23.75	23.75
Residential -- A1(b)	0.4kV	194	214	41	45	7.46	17.13	1.37	0.010	3.79	1.12	23.41	23.41
Commercial -- A2(a)	0.2kV	383	423	81	90	7.46	17.18	1.38	0.010	3.80	1.45	23.81	23.81
Commercial -- A2(b)	0.4kV	0	0	0	0	7.46	17.07	1.37	0.010	3.78	1.12	23.34	23.34
Commercial -- A2(c)	0.4kV	386	426	80	88	7.46	16.78	1.34	0.010	3.71	1.12	22.96	22.96
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	7.46	16.57	1.33	0.010	3.67	1.12	22.69	22.69
Industrial -- B1(a)	0.2kV	34	37	7	8	7.46	17.14	1.37	0.010	3.79	1.45	23.76	23.76
Industrial -- B2(a)	0.4kV	0	0	0	0	7.46	16.78	1.34	0.010	3.71	1.12	22.96	22.96
Industrial -- B1(b)	0.4kV	490	541	100	110	7.46	16.53	1.32	0.010	3.66	1.12	22.63	22.63
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	7	16	1	0	4	1	23	22.59
Industrial -- B3	11kV	1,230	1,311	242	258	7	15	1	0	3	1	21	21.12
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	7.46	17.54	1.40	0.010	3.88	1.45	24.28	24.28
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	7.46	16.83	1.35	0.010	3.72	1.12	23.03	23.03
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	7	17	1	0	4	1	23	22.95
Single Point Supply -- C2(b)	11kV	167	178	33	35	7	16	1	0	3	1	21	21.30
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	7.46	16.73	1.34	0.010	3.70	1.12	22.90	22.90
Agricultural -- D2(a)	0.4kV	85	94	18	20	7.46	16.96	1.36	0.010	3.75	1.12	23.20	23.20
Agricultural -- D2(b)	0.4kV	471	521	98	108	7.46	16.87	1.35	0.010	3.73	1.12	23.07	23.07
Agricultural -- D1(b)	0.4kV	0	0	0	0	7.46	17.03	1.36	0.010	3.77	1.12	23.29	23.29
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	7.46	17.64	1.41	0.010	3.90	1.45	24.41	24.41
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	7.46	17.36	1.39	0.010	3.84	1.45	24.05	24.05
Temporary Supply -- E2	0.2kV	1	1	0	0	7.46	17.13	1.37	0.010	3.79	1.45	23.75	23.75
Public Lighting -- G	0.4kV	18	20	4	4	7.46	16.82	1.35	0.010	3.72	1.12	23.02	23.02
Residential Colonies -- H	11kV	1	1	0	0	7.20	15.57	1.25	0.009	3.38	1.11	21.32	21.32
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	7.20	15.71	1.26	0.009	3.41	1.11	21.50	21.50
A3 General	0.4kV	188	207	39	43	7.46	16.89	1.35	0.010	3.74	1.12	23.11	23.11
		11,725	12,885	2,434	2,675	7.43	16.78	1.34	0.010	3.70	1.31	23.15	23.15
													30.57



Table 25

COST OF SERVICE FY 2023-24 (per kWh Purchased)													
Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs./kWh)	MOF Cost (Rs./kWh)	Distribution		Total Fixed Cost (Rs./kWh)	Fixed Cost Rs./kWh Purchased
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kWh)			Demand (Rs./kWh)	cust. Cost (Rs./kWh)		
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	6.76	15.51	1.24	0.009	3.43	1.31	21.50	21.50
Residential -- A1(b)	0.4kV	194	214	41	45	6.76	15.51	1.24	0.009	3.43	1.01	21.20	21.20
Commercial -- A2(a)	0.2kV	383	423	81	90	6.76	15.55	1.25	0.009	3.44	1.31	21.56	21.56
Commercial -- A2(b)	0.4kV	0	0	0	0	6.76	15.45	1.24	0.009	3.42	1.01	21.13	21.13
Commercial -- A2(c)	0.4kV	386	426	80	88	6.76	15.19	1.22	0.009	3.36	1.01	20.79	20.79
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	6.76	15.00	1.20	0.009	3.32	1.01	20.54	20.54
Industrial -- B1(a)	0.2kV	34	37	7	8	6.76	15.52	1.24	0.009	3.43	1.31	21.51	21.51
Industrial -- B2(a)	0.4kV	0	0	0	0	6.76	15.19	1.22	0.009	3.36	1.01	20.79	20.79
Industrial -- B1(b)	0.4kV	490	541	100	110	6.76	14.96	1.20	0.009	3.31	1.01	20.49	20.49
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	7	15	1	0	3	1	20	20
Industrial -- B3	11kV	1,230	1,311	242	258	7	14	1	0	3	1	20	19.82
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	6.76	15.88	1.27	0.009	3.51	1.31	21.98	21.98
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	6.76	15.24	1.22	0.009	3.37	1.01	20.85	20.85
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	7	15	1	0	3	1	21	20.78
Single Point Supply -- C2(b)	11kV	167	178	33	35	7	15	1	0	3	1	20	19.99
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	6.76	15.15	1.21	0.009	3.35	1.01	20.73	20.73
Agricultural -- D2(a)	0.4kV	85	94	18	20	6.76	15.36	1.23	0.009	3.40	1.01	21.00	21.00
Agricultural -- D2(b)	0.4kV	471	521	98	108	6.76	15.27	1.22	0.009	3.38	1.01	20.89	20.89
Agricultural -- D1(b)	0.4kV	0	0	0	0	6.76	15.42	1.24	0.009	3.41	1.01	21.08	21.08
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	6.76	15.97	1.28	0.009	3.53	1.31	22.10	22.10
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	6.76	15.72	1.26	0.009	3.48	1.31	21.78	21.78
Temporary Supply -- E2	0.2kV	1	1	0	0	6.76	15.51	1.24	0.009	3.43	1.31	21.50	21.50
Public Lighting -- G	0.4kV	18	20	4	4	6.76	15.23	1.22	0.009	3.37	1.01	20.84	20.84
Residential Colonies -- H	11kV	1	1	0	0	6.76	14.61	1.17	0.009	3.18	1.04	20.01	20.01
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	6.76	14.74	1.18	0.009	3.20	1.04	20.18	20.18
A3 General	0.4kV	188	207	39	43	6.76	15.29	1.23	0.009	3.38	1.01	20.92	20.92
Total		11,725	12,885	2,434	2,675	6.76	15.27	1.22	0.009	3.37	1.20	21.07	21.07
													27.82



Table 26

Classes	Voltage Level	FY 2023-24 (Impact of Losses on per kW or kWh basis)										Total Fixed Cost (Rs./kWh)	Total Fixed Cost (Rs./kWh)	Total Cost (Rs./kWh)
		Energy GWh		Demand MW		Generation Cost		Transm Cost		MOF		Distribution	Total Fixed Cost (Rs./kWh)	Total Cost (Rs./kWh)
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kW/M)	Cost (Rs./kW/M)	Cost (Rs./kW/M)	Cost (Rs./kW/M)	Cost (Rs./kW/M)			
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	0.71	640.46	51.31	51.31	0.37	141.66	54.06	887.87	2.95
Residential -- A1(b)	0.4kV	194	214	41	45	0.71	640.46	51.31	51.31	0.37	141.66	41.75	875.56	2.92
Commercial -- A2(a)	0.2kV	383	423	81	90	0.71	640.46	51.31	51.31	0.37	141.66	53.91	887.72	2.96
Commercial -- A2(b)	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	41.90	875.71	2.91
Commercial -- A2(c)	0.4kV	386	426	80	88	0.71	640.46	51.31	51.31	0.37	141.66	42.61	876.42	2.88
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	43.15	876.96	2.85
Industrial -- B1(a)	0.2kV	34	37	7	8	0.71	640.46	51.31	51.31	0.37	141.66	54.03	887.84	2.95
Industrial -- B2(a)	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	42.62	876.43	2.88
Industrial -- B1(b)	0.4kV	490	541	100	110	0.71	640.46	51.31	51.31	0.37	141.66	43.27	877.08	2.85
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	1	640	51	51	0	142	43	877	2.84
Industrial -- B3	11kV	1,230	1,311	242	258	0	402	32	32	0	87	29	551	1.74
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	52.80	886.61	3.00
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	42.49	876.30	2.88
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	1	640	51	51	0	142	43	876	2.88
Single Point Supply -- C2(b)	11kV	167	178	33	35	0	402	32	32	0	87	29	551	1.76
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	42.74	876.55	2.87
Agricultural -- D2(a)	0.4kV	85	94	18	20	0.71	640.46	51.31	51.31	0.37	141.66	42.16	875.97	2.90
Agricultural -- D2(b)	0.4kV	471	521	98	108	0.71	640.46	51.31	51.31	0.37	141.66	42.40	876.21	2.89
Agricultural -- D1(b)	0.4kV	0	0	0	0	0.71	640.46	51.31	51.31	0.37	141.66	41.99	875.80	2.91
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	0.71	640.46	51.31	51.31	0.37	141.66	52.49	886.30	3.02
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	0.71	640.46	51.31	51.31	0.37	141.66	53.32	887.13	2.98
Temporary Supply -- E2	0.2kV	1	1	0	0	0.71	640.46	51.31	51.31	0.37	141.66	54.05	887.86	2.95
Public Lighting -- G	0.4kV	18	20	4	4	0.71	640.46	51.31	51.31	0.37	141.66	42.51	876.32	2.88
Residential Colonies -- H	11kV	1	1	0	0	0.44	402.31	32.23	32.23	0.23	87.47	28.76	551.01	1.76
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	0.44	402.31	32.23	32.23	0.23	87.47	28.51	550.76	1.77
A3 General	0.4kV	188	207	39	43	0.71	640.46	51.31	51.31	0.37	141.66	42.34	876.15	2.89
Total		11,725	12,885	2,434	2,675	0.67	607.81	48.70	48.70	0.35	134.13	47.61	838.61	2.75



Table 27

FY 2023-24 (Impact of Losses on per kWh basis)													
Classes	Voltage Level	Energy GWh		Demand MW		Generation Cost		Transm Cost (Rs./kW/M)	MOF Cost (Rs./kW/M)	Distribution		Total Fixed Cost (Rs./kW/M)	Total Cost (Rs./kWh)
		Sold	Purchased	at Meter	at CDP	Energy (Rs./kWh)	Demand (Rs./kW/M)			Demand (Rs./kW/M)	cust. Cost (Rs./kW/M)		
Residential -- A1(a)	0.2kV	6,626	7,319	1,397	1,543	0.71	1.62	0.13	0.0009	0.36	0.14	2.25	2.95
Residential -- A1(b)	0.4kV	194	214	41	45	0.71	1.62	0.13	0.0009	0.36	0.11	2.22	2.92
Commercial -- A2(a)	0.2kV	383	423	81	90	0.71	1.63	0.13	0.0009	0.36	0.14	2.25	2.96
Commercial -- A2(b)	0.4kV	0	0	0	0	0.71	1.61	0.13	0.0009	0.36	0.11	2.21	2.91
Commercial -- A2(c)	0.4kV	386	426	80	88	0.71	1.59	0.13	0.0009	0.35	0.11	2.17	2.88
Commercial -- A2(d) V.Ch	0.4kV	0	0	0	0	0.71	1.57	0.13	0.0009	0.35	0.11	2.15	2.85
Industrial -- B1(a)	0.2kV	34	37	7	8	0.71	1.62	0.13	0.0009	0.36	0.14	2.25	2.95
Industrial -- B2(a)	0.4kV	0	0	0	0	0.71	1.59	0.13	0.0009	0.35	0.11	2.17	2.88
Industrial -- B1(b)	0.4kV	490	541	100	110	0.71	1.56	0.13	0.0009	0.35	0.11	2.14	2.85
Industrial -- B2(b)	0.4kV	1,131	1,249	230	254	1	2	0	0	0	0	2	2.84
Industrial -- B3	11kV	1,230	1,311	242	258	0	1	0	0	0	0	1	1.74
Industrial -- B4	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	0.71	1.66	0.13	0.0010	0.37	0.14	2.30	3.00
Single Point Supply -- C1(b)	0.4kV	0	0	0	0	0.71	1.59	0.13	0.0009	0.35	0.11	2.18	2.88
Single Point Supply -- C2(a)	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C3(a)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Single Point Supply -- C1(c)	0.4kV	11	12	2	2	1	2	0	0	0	0	2	2.88
Single Point Supply -- C2(b)	11kV	167	178	33	35	0	1	0	0	0	0	1	1.76
Single Point Supply -- C3(b)	132/66kV	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural -- D1(a)	0.4kV	0	0	0	0	0.71	1.58	0.13	0.0009	0.35	0.11	2.17	2.87
Agricultural -- D2(a)	0.4kV	85	94	18	20	0.71	1.60	0.13	0.0009	0.35	0.11	2.19	2.90
Agricultural -- D2(b)	0.4kV	471	521	98	108	0.71	1.60	0.13	0.0009	0.35	0.11	2.18	2.89
Agricultural -- D1(b)	0.4kV	0	0	0	0	0.71	1.61	0.13	0.0009	0.36	0.11	2.20	2.91
Temporary Supply -- E1(i)	0.2kV	1	1	0	0	0.71	1.67	0.13	0.0010	0.37	0.14	2.31	3.02
Temporary Supply -- E1(ii)	0.2kV	16	17	3	4	0.71	1.64	0.13	0.0010	0.36	0.14	2.28	2.98
Temporary Supply -- E2	0.2kV	1	1	0	0	0.71	1.62	0.13	0.0009	0.36	0.14	2.25	2.95
Public Lighting -- G	0.4kV	18	20	4	4	0.71	1.59	0.13	0.0009	0.35	0.11	2.18	2.88
Residential Colonies -- H	11kV	1	1	0	0	0.44	0.96	0.08	0.0006	0.21	0.07	1.31	1.76
Azad Jammu Kashmir - K1a	11kV	-	-	-	-	-	-	-	-	-	-	-	-
Azad Jammu Kashmir - K1b	11kV	292	312	59	62	0.44	0.97	0.08	0.0006	0.21	0.07	1.32	1.77
A3 General	0.4kV	188	207	39	43	0.71	1.60	0.13	0.0009	0.35	0.11	2.19	2.89
Total		11,725	12,885	2,434	2,675	0.67	1.51	0.12	0.0009	0.33	0.12	2.08	2.75



Gujranwala Electric Power Company (GEPCO) Ltd.

Summary of Differences in the Category-Wise Cost of Service and the Proposed Use of System Charges in the Original Petition versus the values submitted as per this Addendum for FY 2023-24

Change in Cost of Service				
FY 2023-24				
Customer Class	Voltage	CoS Rs. /kWh		
		Original Submission	Addendum	Difference
Residential A1(a)	0.2kV	31.21	31.21	(0.00)
Residential A1(b)	0.4kV	30.90	30.88	0.02
Commercial A2(a)	0.2kV	31.26	31.27	(0.01)
Commercial A2(b)	0.4kV	30.80	30.80	(0.00)
Commercial A2(c)	0.4kV	30.43	30.43	(0.00)
Commercial A2(d)	0.4kV	30.47	30.15	0.32
Industrial B1(a)	0.2kV	31.22	31.22	(0.00)
Industrial B2(a)	0.4kV	-	30.42	(30.42)
Industrial B1(b)	0.4kV	30.09	30.09	(0.00)
Industrial B2(b)	0.4kV	30.05	30.05	(0.00)
Industrial B3	11kV	28.32	28.32	(0.00)
Industrial B4	132kV	-	-	-
Bulk Supply C1(a)	0.2kV	31.74	31.74	(0.00)
Bulk Supply C1(b)	0.4kV	30.49	30.49	(0.00)
Bulk Supply C2(a)	11kV	-	-	-
Bulk Supply C3(a)	132kV	-	-	-
Bulk Supply C1(c)	0.4kV	30.41	30.41	(0.00)
Bulk Supply C2(b)	11kV	28.50	28.50	(0.00)
Bulk Supply C3(b)	132kV	-	-	-
Agricultural D1(a)	0.4kV	30.36	30.36	(0.00)
Agricultural D2(a)	0.4kV	30.66	30.66	(0.00)
Agricultural D2(b)	0.4kV	30.54	30.54	(0.00)
Agricultural D1(b)	0.4kV	30.75	30.75	(0.00)
Temporary E1(i)	0.2kV	31.87	31.87	(0.00)
Temporary E1(ii)	0.2kV	31.52	31.52	(0.00)
Temporary E2	0.2kV	31.21	31.21	(0.00)
Public Lighting G	0.4kV	30.48	30.48	(0.00)
Residential Col.H	11kV	28.52	28.52	(0.00)
A J K K1a	11kV	-	-	-
A J K K1b	11kV	28.70	28.70	(0.00)
A3 General	0.4kV	30.57	30.57	(0.00)
Total		30.57	30.57	0.00

Changes in Use of System Charges				
FY 2023-24				
Customer Class	Voltage	UoSC Rs. /kWh		
		Original Submission	Addendum	Difference
Industrial B3	11kv	26.739	25.406	1.332
Bulk Supply C2(b)	11kv	30.048	28.565	1.483
Industrial B4	132kv	27.156	26.166	0.990
Bulk Supply C3(b)	132kv	30.452	29.459	0.993

